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Division of Public Water Supplies  
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## Groundwater Quality Protection Program

Round Lake  
FACILITY NUMBER 0971500  
WELL SITE SURVEY REPORT

Division of Public Water Supplies





IEPA/PWS/93-099

GROUNDWATER QUALITY PROTECTION PROGRAM:

Round Lake  
FACILITY NUMBER 0971500  
WELL SITE SURVEY REPORT

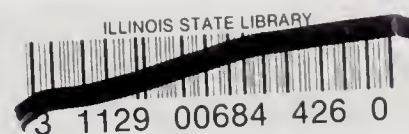
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### INTRODUCTION

This report has been prepared by the Illinois Environmental Protection Agency (Agency) pursuant to Section 17.1 of the Illinois Environmental Protection Act (Act). The report summarizes information about your facility and samples collected and analyzed from your well(s). The well site survey provides an inventory of the area around the well(s) to help increase your awareness of potential hazards to the groundwater utilized by your facility. This information and technical data will assist you in developing and implementing local groundwater protection measures authorized by the Act.

### FACILITY DESCRIPTION AND GEOLOGIC PROFILE OF WELL SITES

Round Lake has three public water supply wells. The facility produces 343,000 gallons per day to an estimated population of 3550. See Table I for a description of each well. The wells utilize a shallow bedrock and a deep bedrock (for well no. 3) aquifer overlain by uniform, relatively impermeable silty or clayey till at least 50 feet thick. Permeability is the ability of a soil or sediment to transmit fluids. A detailed description and geologic profile is found in the Facility wells Report (Appendix D).

TABLE 1

Well I.D.	Setback Min. (Ft.)	Max. (Ft.)	Status	Capacity (gpm) (MGD)	Specific Capacity (gpm/ft)	Treatment	Aquifer	Well Depth (Ft.)	Well Logs Avail.
Well #1 (20298)	200		A	140.2 0.202	NA	C1	Shallow Bedrock	350	No
Well #2 (20299)	200		A	249.8 0.360	NA	C1	Shallow Bedrock	359	Yes
Well #3 (20300)	200		A	399.0 0.576	NA	C1	Deep Bedrock	1241	Yes

A=Active; I=Inactive; SB=Standby

### GROUNDWATER SAMPLING/MONITORING HISTORY

The public water supply wells no. 1, no. 2, and no. 3 were sampled as part of the Statewide Groundwater Monitoring Network on January 7, 1987 and August 6, 1985 (for well no. 2). The samples were analyzed for volatile organic and aromatic chemicals (VOC/VOA) and inorganic chemicals (IOC). The VOC/VOA analyses performed detected no quantifiable levels of organic chemicals in the wells. The IOC analyses performed found the water from the wells to meet all general use guidelines.

### SURVEY METHODS AND PROCEDURES

The detailed well site survey consists of an aerial photographic map and inventory sheets (Appendix B-C), that relate information about potential sources, routes and possible problem sites to your water supply well(s). The location of potential sources, routes, possible problem sites, water supply wells, minimum setback zones, and 1,000 foot survey area are all displayed on the aerial photographic map.

The first page of each survey consists of a summary description and geologic profile for each well. The second and following pages of the survey inventory units within and bordering a 1,500 foot radius of the wellhead. A unit is defined as any device, mechanism, equipment, or area (exclusive of land utilized for agricultural production). The Agency five-digit well number is associated with a unit or map code, and then classified. The classification codes relate to definitions of potential contamination sources and routes as defined in the Illinois Groundwater Protection Act (see Groundwater Primer pages 18-19). The distance and direction of the unit from the wellhead is also indicated.

#### Survey Results and Findings:

The well site survey of Round Lake was conducted on June 29, 1993 by Laurie Moyer, Environmental Protection Specialist from the Agency's Rockford Regional Office. The following describes the results and findings for Round Lake.

#### Round Lake Well #1 (20298)

The survey area is urban consisting of commercial/industrial businesses. The well is located off Rt. 134. There are three visible potential sources, routes, or possible problem sites within the minimum setback zone (200 feet). These sites are Arkin Hardware (map code 1) located 100 feet southwest of the well, Molitor's Standard Service & Car Wash (map code 3) located 100 feet northwest of the well, and Chain-o-Lakes (map code 4) located 50 feet north of the well. Four potential source or possible problem site is located outside the minimum setback zone but within the survey area of the well (1500 feet). These sites are Round Lake Fire Department (map code 2) located 400 feet west of the well, A Tire Country Service (map code 5) located 725 feet northwest of the well, Kurz Machine and Manufacturing (map code 6) located 1000 feet northwest of the well, and One Hour Service Dry Cleaning (map code 8) located 1475 feet northwest of the well.



Round Lake Well #2 (20299)

The survey area is urban consisting of commercial/industrial businesses. The well is located off Cedar Lake Rd. There are no visible potential sources, routes, or possible problem sites within the minimum setback zone (200 feet). Ten potential source or possible problem site is located outside the minimum setback zone but within the survey area of the well (1500 feet). These sites are Arkin Hardware (map code 1) located 1250 feet southeast of the well, Round Lake Fire Department (map code 2) located 1150 feet south of the well, Molitor's Standard Service & Car Wash (map code 3) located 1150 feet southeast of the well, Chain-o-Lakes Lumber (map code 4) located 1100 feet southeast of the well, A Tire County Service (map code 5) located 400 feet southeast of the well, Kurz Machine and Manufacturing (map code 6) located 225 feet southeast of the well, Classy Chassis (map code 7) located 675 feet southwest of the well, One Hour Service Dry Cleaning (map code 8) located 350 feet north of the well, John MaGee Jr. High School (map code 9) located 800 feet north of the well, and The Grieve Corp. (map code 10) located 900 feet northwest of the well.

Round Lake Well #3 (20300)

The survey area is rural consisting of moderate density residential housing and farmland. The well is located off Nippersink Road. There are no visible potential sources, routes, or possible problem sites within the survey (200 feet) or located outside the minimum setback zone but within the survey (1500 feet).

### SUMMARY

The well site survey conducted indicates that there are potential sources/sites that could pose a hazard to groundwater utilized by the Round Lake public water wells.

- Two sites with below ground fuel storage: Molidor's Standard Service & Car Wash and A Tire Country Services (also a small quantity generator).
- Several other sites including Arkin Hardware, Round Lake Fire Department, Chain-o-Lakes Lumber, Kurz Machine & Manufacturing, Classy Chassis, One Hour Dry Cleaning, John MaGee Jr. High School and The Grieve Corp.

The Illinois Environmental Protection Act provides minimum protection zones for your wells. These minimum protection zones are regulated by the Agency. The Act also authorizes county and municipal officials the opportunity to provide maximum protection zones up to 1,000 feet. The responsibility for the control would then be assumed by the local officials through adoption of a maximum setback zone ordinance.

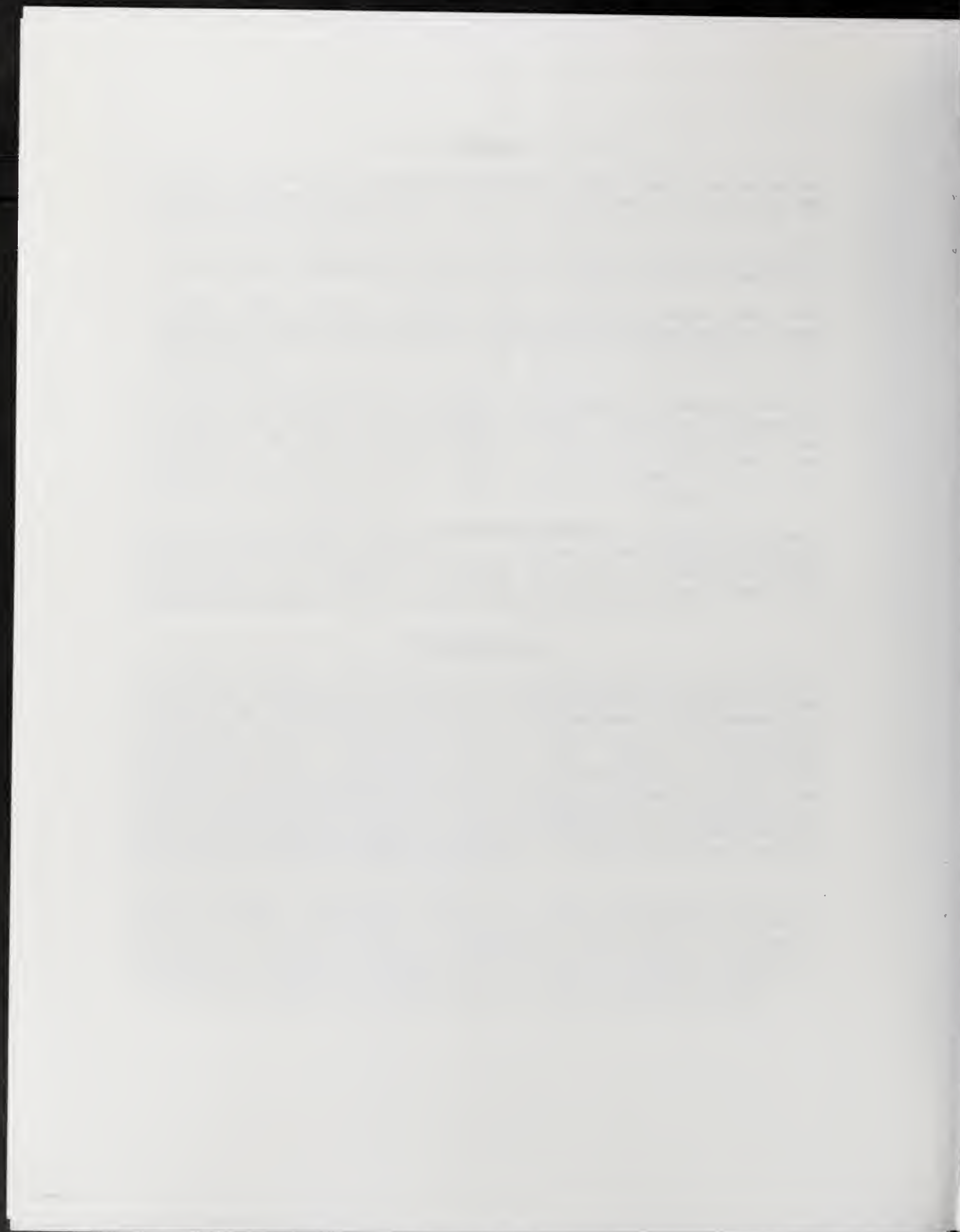
Maximum setback zones prohibit the siting of new potential primary sources of groundwater contamination. A maximum setback up to 1,000 feet could expand the regulatory coverage of certain existing and new activities. These controls could be implemented upon the adoption of proposed regulations by the Illinois Pollution Control Board.

### RECOMMENDATIONS

The Agency strongly urges Round Lake to consider establishing a maximum setback zone ordinance for its wells. Maximum setback zones prohibit the siting of new potential primary sources of groundwater contamination up to 1000 feet from respective wellheads. Regulatory coverage of certain existing activities could be expanded upon adoption of proposed regulations currently before the Illinois Pollution Control Board. To aid you in the development of further regulatory coverage for your well supply, the Agency prepared a "Maximum Setback Zone Workbook" that provides detailed case studies of how to establish maximum setback zones. This text and further technical assistance is readily available from the Agency and the Illinois State Water Survey.

Local governments are also encouraged to consider conducting groundwater protection needs assessments. Any county or municipality having a population less than 25,000 or 5,000 persons respectively, may request the Agency to conduct a hazard review in lieu of a need's assessment. The Agency may issue an "advisory of groundwater contamination hazard" if a significant hazard to the public health or the environment exists.

## TECHNICAL APPENDICES





APPENDIX A - Topographic Map of Round Lake (0971500) Well Site Locations

Map showing Round Lake, Illinois, with well site locations marked by numbers and symbols. Key features include Round Lake, Round Lake Beach, Round Lake Park, and the Campbell Airport. A 'GENERAL STUDY AREA' is highlighted in the center. A scale bar indicates 1 inch equals 2000 feet. A north arrow is present in the bottom left corner.

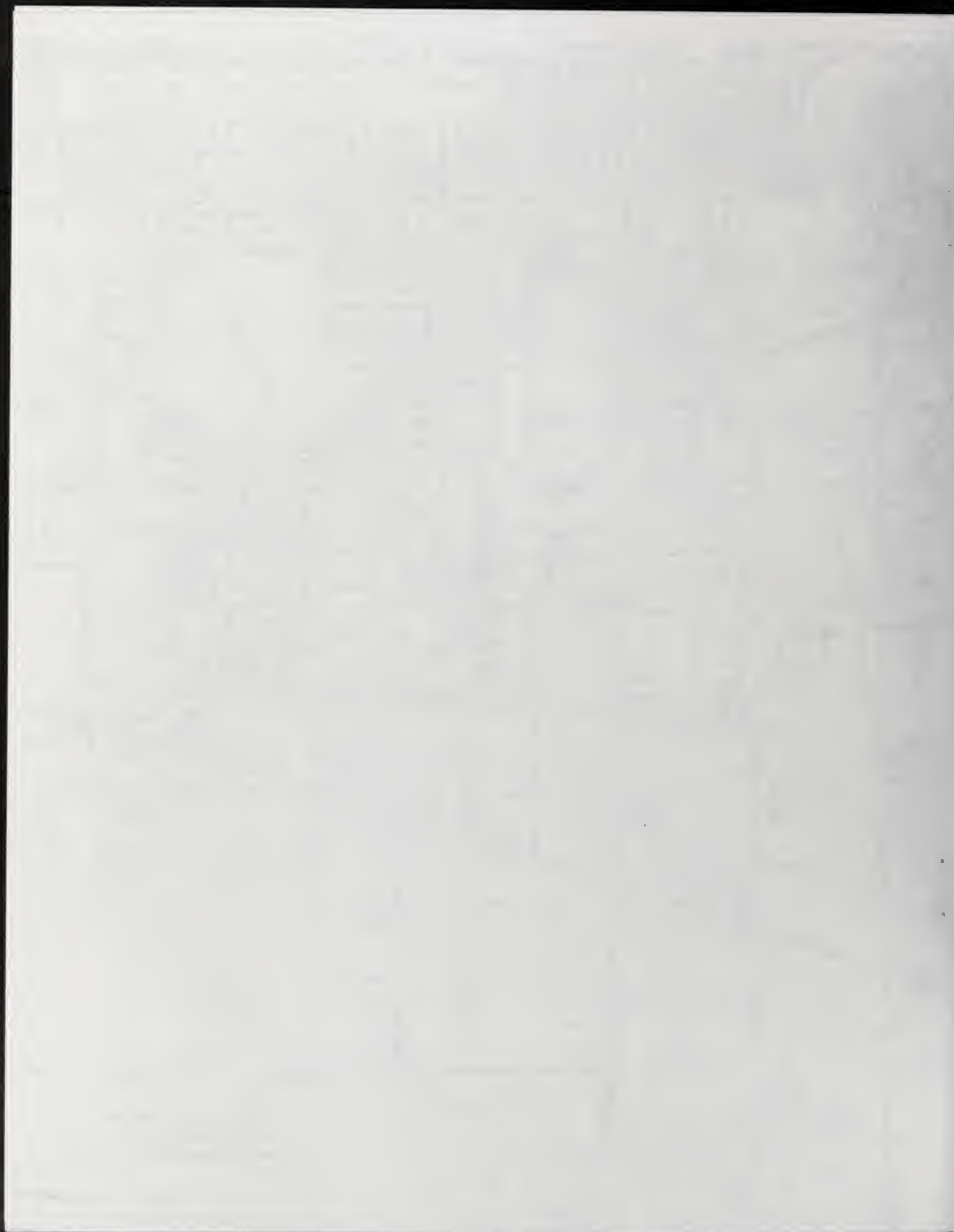
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APPENDIX A - Topographic Map of Round Lake (0971500) Well Site Locations

Map details include:
 

- Well Site Locations:** Marked with numbers and symbols, including 20314, 20315, 20316, 20317, 20299, 20300, 20298, 20301, 20303, 20304, 20265, and 20127.
- Geographic Features:** Round Lake, Round Lake Beach, Round Lake Park, Round Lake Creek, and Round Lake Shore.
- Infrastructure:** Roads (e.g., Highland, Heather, Wildwood, Sunset, Clarendon, Cedar Lake, Greendale, Locust, Briarcliff, Clifton, Willow, Forest, Glen, Milwaukee, Curran, Bacon, Belvidere, Port), Highways (e.g., 120, 16, 17, 18, 20, 21, 24, 28, 29, 30, 32, 33), and the Campbell Airport.
- Landmarks:** High School, Park Sch, Lagoon Park, Hainesville, and Fort Hill Cem.
- Study Area:** A 'GENERAL STUDY AREA' is outlined in the center of the map.
- Scale and Orientation:** A scale bar indicates 1"=2000'. A north arrow is located in the bottom left corner.







APPENDIX B  
Aerial Photographic Map







NORTH  
ROUND LAKE  
0971500  
1"=400'

S D E  
3-1-94



Appendix B1 - WELL SITE SUMMARY DESCRIPTION AND GEOLOGIC PROFILE

Round Lake Well No. 1 (IEPA #20298)

SURVEYOR: Moyer  
SURVEY DATE: 06-29-93  
ADDRESS: Village of Round Lake  
442 N. Cedar Lake Rd.  
Round Lake, IL 60073

---

AGENCY WELL NO: 20298  
WELL NAME & DESC: Well #1  
TREATMENT APPLICATION POINT: 01  
FACILITY NO. & NAME: 0971500 - Round Lake  
FACILITY PHONE CONTACT: 708-546-0962

---

LOCATION: TWP, RNG, SECTION, 10 ACRE PLOT: 45N, 10E, 29, 4F  
DISTANCE FROM CORNER: 1550N, 2400W  
QUAD SHEET CODE & NAME: 008D - Grayslake  
MIN. SETBACK: 200 feet  
MAX. SETBACK:

---

SURFICIAL GEOLOGIC SUSCEPTIBILITY RATING: E- Uniform, relatively impermeable  
silty or clayey till at least 50 feet thick; no evidence of interbedded sand and  
gravel.

AGE OF WELL: 1912

WELL DEPTH: 350 feet

CASING DEPTH: 230

AQUIFER CODE: 5050 - Shallow Bedrock

MULTIPLE AQUIFER (Y,N): No

SUMMARY DESCRIPTION OF 1,000' RADIUS AREA: The survey area is urban consisting of  
commerical/industrial businesses.

---

INTERVIEW(S) NAME-ADDRESS-AFFILIATION-TELEPHONE NO:

APPENDIX B1 - INVENTORY & SYNOPSIS OF UNIT(S) Round Lake Well No. 1 (IEPA #20298)

\*CLASSF KEY

MIN. ZONE	OUTSIDE MIN. ZONE
PP = POTENTIAL PRIMARY	OP = POTENTIAL PRIMARY
PS = POTENTIAL SECONDARY	OS = POTENTIAL SECONDARY
RI = ROUTE	OR = ROUTE
CC = CERTIFIED	CC = CERTIFIED
XI = UNKNOWN	OX = UNKNOWN
CU = CLEANUP	CU = CLEANUP

---

WELL NO. - MAP CODE - CLASSF\*: 20298-01  
NAME & ADDRESS OF UNIT OWNER: Arkin Hardware, 319 W. Nippersink Rd., Round Lake, IL 60073  
DESCRIPTION AND COMMENTS: Hardware  
PRE OR POST (Y,N): Yes  
DISTANCE AND DIRECTION: 100 feet southwest of the well

---

WELL NO. - MAP CODE - CLASSF\*: 20298-02  
NAME & ADDRESS OF UNIT OWNER: Round Lake Fire Department, 409 W. Nippersink Rd., Round Lake, IL 60073  
DESCRIPTION AND COMMENTS: Fire Department  
PRE OR POST (Y,N): Yes  
DISTANCE AND DIRECTION: 400 feet west of the well

---

WELL NO. - MAP CODE - CLASSF\*: 20298-03-PS  
NAME & ADDRESS OF UNIT OWNER: Molidor's Standard Service & Car Wash, W. Nippersink Rd., Round Lake, IL 60073  
DESCRIPTION AND COMMENTS: Service Station & Car Wash, 3 registered underground storage tanks on site, OSFM #2-018131  
PRE OR POST (Y,N): Yes  
DISTANCE AND DIRECTION: 100 feet northwest of the well

---

WELL NO. - MAP CODE - CLASSF\*: 20298-04  
NAME & ADDRESS OF UNIT OWNER: Chain-o-Lakes Lumber, 340 W. Railroad, Round Lake, IL 60073  
DESCRIPTION AND COMMENTS: Lumber yard  
PRE OR POST (Y,N): Yes  
DISTANCE AND DIRECTION: 50 feet north of the well

---

WELL NO. - MAP CODE - CLASSF\*: 20298-05-OS  
NAME & ADDRESS OF UNIT OWNER: A Tire Country Service, 363 N. Cedar Lake Rd., Round Lake, IL 60073  
DESCRIPTION AND COMMENTS: Union 76 Gas Station and Goodyear Tire Store, 3 registered underground storage tanks on site OSFM #2-006179  
Small quantity generator  
PRE OR POST (Y,N): Yes  
DISTANCE AND DIRECTION: 725 feet northwest of the well

---

APPENDIX B1 - INVENTORY & SYNOPSIS OF UNIT(S) Round Lake Well No. 1 (IEPA #20298)

**\*CLASSF KEY**

MIN. ZONE	OUTSIDE MIN. ZONE
PP = POTENTIAL PRIMARY	OP = POTENTIAL PRIMARY
PS = POTENTIAL SECONDARY	OS = POTENTIAL SECONDARY
RI = ROUTE	OR = ROUTE
CC = CERTIFIED	CC = CERTIFIED
XI = UNKNOWN	OX = UNKNOWN
CU = CLEANUP	CU = CLEANUP

---

WELL NO. - MAP CODE - CLASSF\*: 20298-06

NAME & ADDRESS OF UNIT OWNER: Kurz Machine and Manufacturing, 380 Cedar Lake Rd., Round Lake, IL 60073

DESCRIPTION AND COMMENTS: Manufacture tools, dies, jigs, stamps, machine parts and general machining

PRE OR POST (Y,N): Yes

DISTANCE AND DIRECTION: 1000 feet northwest of the well

---

WELL NO. - MAP CODE - CLASSF\*: 20298-07

NAME & ADDRESS OF UNIT OWNER: Classy Chassis, 545 Railroad Ave., Round Lake, IL 60073

DESCRIPTION AND COMMENTS: Auto Repair

PRE OR POST (Y,N): Yes

DISTANCE AND DIRECTION: 1600 feet northwest of the well

---

WELL NO. - MAP CODE - CLASSF\*: 20298-08

NAME & ADDRESS OF UNIT OWNER: One Hour Service Dry Cleaning, 456 N. Cedar Lake Rd., Round Lake, IL 60073

DESCRIPTION AND COMMENTS: Dry Cleaners

PRE OR POST (Y,N): Yes

DISTANCE AND DIRECTION: 1475 feet northwest of the well

---

WELL NO. - MAP CODE - CLASSF\*: 20298-09

NAME & ADDRESS OF UNIT OWNER: John MaGee Jr. High School, 500 N. Cedar Lake Rd., Round Lake, IL 60073

DESCRIPTION AND COMMENTS: Jr. High School

PRE OR POST (Y,N): Yes

DISTANCE AND DIRECTION: 2000 feet northwest of the well

---

WELL NO. - MAP CODE - CLASSF\*: 20298-10

NAME & ADDRESS OF UNIT OWNER: The Grieve Corp., 500 Hart Rd., Round Lake, IL 60073

DESCRIPTION AND COMMENTS: Manufacture industrial and laboratory ovens and furnaces

PRE OR POST (Y,N): Yes

DISTANCE AND DIRECTION: 2150 feet northwest of the well

---







APPENDIX C  
Aerial Photographic Map



20300

FAIRFIELD  
RD.

NIPPERSINK RD.

200'

1000'

1500'

S D E  
3-1-94



NORTH  
ROUND LAKE  
0971500  
1"=400'





APPENDIX B2 - INVENTORY & SYNOPSIS OF UNIT(S) Round Lake Well No. 2 (IEPA #20299)

SURVEYOR: Moyer  
SURVEY DATE: 06-29-93  
ADDRESS: Village of Round Lake  
442 N. Cedar Lake Rd.  
Round Lake, IL 60073

---

AGENCY WELL NO: 20299  
WELL NAME & DESC: Well #2  
TREATMENT APPLICATION POINT: 02  
FACILITY NO. & NAME: 0971500 - Round Lake  
FACILITY PHONE CONTACT: 708-546-0962

---

LOCATION: TWP, RNG, SECTION, 10 ACRE PLOT: 45N, 10E, 29, 5H  
DISTANCE FROM CORNER: 600S, 2175E  
QUAD SHEET CODE & NAME: 008D - Grayslake  
MIN. SETBACK: 200 feet  
MAX. SETBACK:

---

SURFICIAL GEOLOGIC SUSCEPTIBILITY RATING: E- Uniform, relatively impermeable silty or clayey till at least 50 feet thick; no evidence of interbedded sand and gravel.

AGE OF WELL: 1945

WELL DEPTH: 359 feet

CASING DEPTH: 226

AQUIFER CODE: 5050 - Shallow Bedrock

MULTIPLE AQUIFER (Y,N): No

SUMMARY DESCRIPTION OF 1,000' RADIUS AREA: The survey area is urban consisting of commercial/industrial businesses.

---

INTERVIEW(S) NAME-ADDRESS-AFFILIATION-TELEPHONE NO:

APPENDIX B2 - INVENTORY & SYNOPSIS OF UNIT(S) Round Lake Well No. 2 (IEPA #20299)

\*CLASSF KEY

MIN. ZONE	OUTSIDE MIN. ZONE
PP = POTENTIAL PRIMARY	OP = POTENTIAL PRIMARY
PS = POTENTIAL SECONDARY	OS = POTENTIAL SECONDARY
RI = ROUTE	OR = ROUTE
CC = CERTIFIED	CC = CERTIFIED
XI = UNKNOWN	OX = UNKNOWN
CU = CLEANUP	CU = CLEANUP

---

WELL NO. - MAP CODE - CLASSF\*: 20299-01  
NAME & ADDRESS OF UNIT OWNER: Arkin Hardware, 319 W. Nippersink Rd., Round Lake, IL 60073  
DESCRIPTION AND COMMENTS: Hardware  
PRE OR POST (Y,N): Yes  
DISTANCE AND DIRECTION: 1250 feet southeast of the well

---

WELL NO. - MAP CODE - CLASSF\*: 20299-02  
NAME & ADDRESS OF UNIT OWNER: Round Lake Fire Department, 409 W. Nippersink Rd., Round Lake, IL 60073  
DESCRIPTION AND COMMENTS: Fire Department  
PRE OR POST (Y,N): Yes  
DISTANCE AND DIRECTION: 1150 feet southeast of the well

---

WELL NO. - MAP CODE - CLASSF\*: 20299-03-OS  
NAME & ADDRESS OF UNIT OWNER: Molitor's Standard Service & Car Wash, W. Nippersink Rd., Round Lake, IL 60073  
DESCRIPTION AND COMMENTS: Service Station & Car Wash, 3 registered underground storage tanks on site, OSFM #2-018131  
PRE OR POST (Y,N): Yes  
DISTANCE AND DIRECTION: 1150 feet southeast of the well

---

WELL NO. - MAP CODE - CLASSF\*: 20299-04  
NAME & ADDRESS OF UNIT OWNER: Chain-o-Lakes Lumber, 340 W. Railroad, Round Lake, IL 60073  
DESCRIPTION AND COMMENTS: Lumber yard  
PRE OR POST (Y,N): Yes  
DISTANCE AND DIRECTION: 1100 feet southeast of the well

---

WELL NO. - MAP CODE - CLASSF\*: 20299-05-OS  
NAME & ADDRESS OF UNIT OWNER: A Tire Country Service, 363 N. Cedar Lake Rd., Round Lake, IL 60073  
DESCRIPTION AND COMMENTS: Union 76 Gas Station and Goodyear Tire Store, 3 registered underground storage tanks on site OSFM #2-006179  
Small quantity generator  
PRE OR POST (Y,N): Yes  
DISTANCE AND DIRECTION: 400 feet southeast of the well

---



APPENDIX B2 - INVENTORY & SYNOPSIS OF UNIT(S) Round Lake Well No. 2 (IEPA #20299)

**\*CLASSF KEY**

MIN. ZONE	OUTSIDE MIN. ZONE
PP = POTENTIAL PRIMARY	OP = POTENTIAL PRIMARY
PS = POTENTIAL SECONDARY	OS = POTENTIAL SECONDARY
RI = ROUTE	OR = ROUTE
CC = CERTIFIED	CC = CERTIFIED
XI = UNKNOWN	OX = UNKNOWN
CU = CLEANUP	CU = CLEANUP

---

WELL NO. - MAP CODE - CLASSF\*: 20299-06

NAME & ADDRESS OF UNIT OWNER: Kurz Machine and Manufacturing, 380 Cedar Lake Rd., Round Lake, IL 60073

DESCRIPTION AND COMMENTS: Manufacture tools, dies, jigs, stamps, machine parts and general machining

PRE OR POST (Y,N): Yes

DISTANCE AND DIRECTION: 225 feet southeast of the well

---

WELL NO. - MAP CODE - CLASSF\*: 20299-07

NAME & ADDRESS OF UNIT OWNER: Classy Chassis, 545 Railroad Ave., Round Lake, IL 60073

DESCRIPTION AND COMMENTS: Auto Repair

PRE OR POST (Y,N): Yes

DISTANCE AND DIRECTION: 675 feet southwest of the well

---

WELL NO. - MAP CODE - CLASSF\*: 20299-08

NAME & ADDRESS OF UNIT OWNER: One Hour Service Dry Cleaning, 456 N. Cedar Lake Rd., Round Lake, IL 60073

DESCRIPTION AND COMMENTS: Dry Cleaners

PRE OR POST (Y,N): Yes

DISTANCE AND DIRECTION: 350 feet north of the well

---

WELL NO. - MAP CODE - CLASSF\*: 20299-09

NAME & ADDRESS OF UNIT OWNER: John MaGee Jr. High School, 500 N. Cedar Lake Rd., Round Lake, IL 60073

DESCRIPTION AND COMMENTS: Jr. High School

PRE OR POST (Y,N): Yes

DISTANCE AND DIRECTION: 800 feet north of the well

---

WELL NO. - MAP CODE - CLASSF\*: 20299-10

NAME & ADDRESS OF UNIT OWNER: The Grieve Corp., 500 Hart Rd., Round Lake, IL 60073

DESCRIPTION AND COMMENTS: Manufacture industrial and laboratory ovens and furnaces

PRE OR POST (Y,N): Yes

DISTANCE AND DIRECTION: 900 feet northwest of the well

---

THE HISTORY OF THE UNITED STATES OF AMERICA  
FROM 1776 TO 1876

The first part of the book deals with the early history of the United States, from the discovery of the continent by Christopher Columbus in 1492 to the establishment of the first colonies in the early 17th century. This period is characterized by the struggle for survival in a new and hostile environment, and the gradual development of a distinct American identity.

The second part of the book covers the period from the late 17th century to the American Revolution in 1776. This era is marked by the growth of the colonies, the increasing tension with Britain, and the ultimate decision to declare independence. The Revolution is a pivotal moment in American history, as it establishes the United States as a sovereign nation.

The third part of the book discusses the early years of the United States, from the signing of the Constitution in 1787 to the end of the War of 1812. This period is characterized by the consolidation of the new nation, the development of a federal government, and the expansion of territory through the Louisiana Purchase and the War of 1812.

The fourth part of the book covers the period from the mid-19th century to the Civil War in 1861. This era is marked by the rapid expansion of the United States, the growth of industry, and the increasing sectional tensions between the North and the South. The Civil War is a defining moment in American history, as it resolves the issue of slavery and preserves the Union.

The fifth part of the book discusses the Reconstruction period, from the end of the Civil War in 1865 to the late 19th century. This era is characterized by the struggle to rebuild the South, the establishment of the Freedmen's Bureau, and the passage of the Reconstruction Acts. The Reconstruction period is a crucial time in American history, as it lays the foundation for the modern United States.

## APPENDIX C





APPENDIX C1 - INVENTORY & SYNOPSIS OF UNIT(S) Round Lake Well No. 3  
(IEPA #20300)

SURVEYOR: Moyer  
SURVEY DATE: 06-29-93  
ADDRESS: Village of Round Lake  
442 N. Cedar Lake Rd.  
Round Lake, IL 60073

---

AGENCY WELL NO: 20300  
WELL NAME & DESC: Well #3  
TREATMENT APPLICATION POINT: 03  
FACILITY NO. & NAME: 0971500 - Round Lake  
FACILITY PHONE CONTACT: 708-546-0962

---

LOCATION: TWP, RNG, SECTION, 10 ACRE PLOT: 45N, 10E, 30, 3D  
DISTANCE FROM CORNER: 2600N, 1575W  
QUAD SHEET CODE & NAME: 008D - Grayslake  
MIN. SETBACK: 200 feet  
MAX. SETBACK:

---

SURFICIAL GEOLOGIC SUSCEPTIBILITY RATING: E- Uniform, relatively impermeable  
silty or clayey till at least 50 feet thick; no evidence of interbedded sand and  
gravel.

AGE OF WELL: 1974

WELL DEPTH: 1241 feet

CASING DEPTH: 588

AQUIFER CODE: 6080 - Deep Bedrock

MULTIPLE AQUIFER (Y,N): Yes

SUMMARY DESCRIPTION OF 1,000' RADIUS AREA: The survey area is urban consisting of  
moderate density residential housing and farmland.

---

INTERVIEW(S) NAME-ADDRESS-AFFILIATION-TELEPHONE NO:

APPENDIX C1 - INVENTORY & SYNOPSIS OF UNIT(S) Round Lake Well No. 3  
(IEPA #20300)

\*CLASSF KEY

MIN. ZONE	OUTSIDE MIN. ZONE
PP = POTENTIAL PRIMARY	OP = POTENTIAL PRIMARY
PS = POTENTIAL SECONDARY	OS = POTENTIAL SECONDARY
RI = ROUTE	OR = ROUTE
CC = CERTIFIED	CC = CERTIFIED
XI = UNKNOWN	OX = UNKNOWN

---

WELL NO. - MAP CODE - CLASSF\*: 20300

NAME & ADDRESS OF UNIT OWNER:

DESCRIPTION AND COMMENTS: No visible potential sources, routes, or possible problem sites located in the survey area.

PRE OR POST (Y,N):

DISTANCE AND DIRECTION:

---

## APPENDIX D

# THE HISTORY OF THE UNITED STATES

## CHAPTER I

The first part of the history of the United States is the history of the discovery and settlement of the continent. The discovery of the continent was made by Christopher Columbus in 1492. The settlement of the continent was made by the first European settlers in 1607. The history of the United States is the history of the growth and development of the nation from its discovery to the present day.

## CHAPTER II

The second part of the history of the United States is the history of the early years of the nation. This part of the history covers the period from the first settlement of the continent to the end of the American Revolution. It is a period of great growth and development for the young nation.

## CHAPTER III

The third part of the history of the United States is the history of the middle years of the nation. This part of the history covers the period from the end of the American Revolution to the beginning of the Civil War. It is a period of great growth and development for the young nation.



## APPENDIX E





FACILITY: 0971500 ROUND LAKE

OFFICIAL CUSTODIAN

JAMES LUMER

PRESIDENT - MUNICIPAL BLDG

442 N CEDAR LAKE RD

ROUND LAKE IL 60073

WELL: 20296 WELL 1 REAR 322 RAILROAD AVE STATUS: ACTIVE BACKUP DRILLED DEPTH(FT): 350  
LATITUDE: N42 21 14.0 LONGITUDE: W038 05 32.0 TWP: 45N RNG: 10E SEC: 29 PLOT: 4F

SUSCEPTIBILITY - LAND BURIAL: E SUSCEPTIBILITY - LAND SPREADING: D2 --- MINIMUM SETBACK(FT): 0200 ---  
ALTITUDE (FT): 0.00 ALTITUDE METHOD CODE: - UNKNOWN  
INTERVAL 1 - TYPE: 0 - N/A SCREEN MATL: 0 - NOT APPLICABLE DEPTH TO TOP (FT): 0.00 DEPTH TO BOT (FT): 0.00  
INTERVAL 2 - TYPE: 0 - N/A SCREEN MATL: 0 - NOT APPLICABLE DEPTH TO TOP (FT): 0.00 DEPTH TO BOT (FT): 0.00  
INTERVAL 3 - TYPE: 0 - N/A SCREEN MATL: 0 - NOT APPLICABLE DEPTH TO TOP (FT): 0.00 DEPTH TO BOT (FT): 0.00  
AQUIFERS: DEVONIAN SILURIAN DOLOMITE

WELL: 20297 WELL 2 REAR 400 N CEDAR LAKE ROAD STATUS: ACTIVE BACKUP DRILLED DEPTH(FT): 359  
LATITUDE: N42 21 23.0 LONGITUDE: W038 05 40.0 TWP: 45N RNG: 10E SEC: 29 PLOT: 5H

SUSCEPTIBILITY - LAND BURIAL: E SUSCEPTIBILITY - LAND SPREADING: D2 --- MINIMUM SETBACK(FT): 0200 ---  
ALTITUDE (FT): 0.00 ALTITUDE METHOD CODE: - UNKNOWN  
INTERVAL 1 - TYPE: 0 - N/A SCREEN MATL: 0 - NOT APPLICABLE DEPTH TO TOP (FT): 0.00 DEPTH TO BOT (FT): 0.00  
INTERVAL 2 - TYPE: 0 - N/A SCREEN MATL: 0 - NOT APPLICABLE DEPTH TO TOP (FT): 0.00 DEPTH TO BOT (FT): 0.00  
INTERVAL 3 - TYPE: 0 - N/A SCREEN MATL: 0 - NOT APPLICABLE DEPTH TO TOP (FT): 0.00 DEPTH TO BOT (FT): 0.00  
AQUIFERS: DEVONIAN SILURIAN DOLOMITE

WELL: 20300 WELL 3 1049 NIPPERSINK RD W OF FAIRFIELD STATUS: ACTIVE BACKUP DRILLED DEPTH(FT): 1241  
LATITUDE: N42 20 53.0 LONGITUDE: W038 06 46.0 TWP: 45N RNG: 10E SEC: 30 PLOT: 3D

SUSCEPTIBILITY - LAND BURIAL: E SUSCEPTIBILITY - LAND SPREADING: D2 --- MINIMUM SETBACK(FT): 0200 ---  
ALTITUDE (FT): 0.00 ALTITUDE METHOD CODE: - UNKNOWN  
INTERVAL 1 - TYPE: 0 - N/A SCREEN MATL: 0 - NOT APPLICABLE DEPTH TO TOP (FT): 0.00 DEPTH TO BOT (FT): 0.00  
INTERVAL 2 - TYPE: 0 - N/A SCREEN MATL: 0 - NOT APPLICABLE DEPTH TO TOP (FT): 0.00 DEPTH TO BOT (FT): 0.00  
INTERVAL 3 - TYPE: 0 - N/A SCREEN MATL: 0 - NOT APPLICABLE DEPTH TO TOP (FT): 0.00 DEPTH TO BOT (FT): 0.00  
AQUIFERS: CINCINNATION SERIES CHAMPLAINIAN SERIES  
CAMBRIAN SYSTEM EMINENCE-POTOSI  
FRANCONIA IRONTON-GALESVILLE

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF PUBLIC WATER SUPPLIES  
FACILITY WELLS REPORT

CURT: 01/27/94  
10 ULC: 01/27/94

PAGE: 5  
DATE: 01/27/94

FACILITY: 0971500 ROUND LAKE

(CONTINUED)

SUSCEPTIBILITY CODES

LAND BURIAL: E

= UNIFORM, RELATIVELY IMPERMEABLE SILTY OR CLAYEY TILL AT LEAST 50 FT THICK; NO EVIDENCE OF INTERBEDDED SAND AND GRAVEL.

LAND SPREADING: D2 = UNIFORM, RELATIVELY IMPERMEABLE SILTY OR CLAYEY TILL AT LEAST 20 FT THICK; NO EVIDENCE OF INTERBEDDED SAND AND GRAVEL.



## APPENDIX F









ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF PUBLIC WATER SUPPLIES  
SELECTED SAMPLE EXPANDED REPORT

PAGE: 167  
DATE: 01/26/90

FACILITY: 0971000 ROUND LAKE										*** CONTINUED ***																			
SMPL PRG: C-CHEMICAL OBSRVATNS:										SMPL PERIOD: 03/90										FUND CODE: PW30									
ANALYSIS RELY -----STORET-----										-----STANDARDS-----										TRIGGER									
ID	NO	NO	NO	NO	NO	NO	NO	NO	NO	UNITS	RESULT	UNITS	RESULT	UNITS	RESULT	UNITS	RESULT	UNITS	RESULT	UNITS	RESULT	UNITS	RESULT	UNITS	RESULT	UNITS	RESULT	UNITS	RESULT
PH LABORATORY UNITS																													
1001000	001	00095	CONDUCTIVITY(CEC)	LAB(UMHOS/CM @ 25 C						UM/CM	7.800	UM/CM	540.000																
1011000	001	00330	RESIDUE, TOTAL	FILTERABLE @ 300 C, MG/L						MG/L	300.000	MG/L	300.000																
1021000	001	00410	ALKALINITY, TOTAL	MG/L AS CaCO3						MG/L	259.000	MG/L	259.000																
1031000	001	00200	HARDNESS, EDTA	MG/L AS CaCO3						MG/L	222.000	MG/L	222.000																
1071000	001	00251	FLUORIDE, TOTAL	MG/L AS F						MG/L	0.870	MG/L	0.870																
1081000	001	00240	CHLORIDE, TOTAL	MG/L AS CL						MG/L	10.000	MG/L	10.000																
1091000	001	00245	SULFATE, TOTAL	MG/L AS SO4						MG/L	21.000	MG/L	21.000																
1101000	001	00630	NITRATE & NITRITE	TOTAL MG/L AS N						MG/L	0.100 <	MG/L	0.100 <																
1111000	001	00610	NITROGEN, AMMONIA	TOTAL MG/L AS N						MG/L	0.100 <	MG/L	0.100 <																
1141000	001	00255	SILICA, TOTAL	MG/L AS SiO2						MG/L	7.400	MG/L	7.400																
1151000	001	00720	CYANIDE, TOTAL	MG/L AS CN						MG/L	0.005 <	MG/L	0.005 <																
1401000	001	01002	ARSENIC, TOTAL	RECOVERABLE UG/L AS AS						UG/L	1.000 <	UG/L	1.000 <																
1511000	001	01051	LEAD, TOTAL	RECOVERABLE UG/L AS PB						UG/L	5.000 <	UG/L	5.000 <																
1531000	001	01200	MERCURY, TOTAL	UG/L AS HG						UG/L	0.050 <	UG/L	0.050 <																
1551000	001	01147	SELENIUM, TOTAL	RECOVERABLE UG/L AS SE						UG/L	1.000 <	UG/L	1.000 <																
1721100	001	00210	CALCIUM, TOTAL	RECOVERABLE MG/L AS CA ANAL BY ICP						MG/L	59.000	MG/L	59.000																
1721100	001	00227	MAGNESIUM, TOTAL	RECOVERABLE MG/L AS CA ANAL BY ICP						MG/L	18.000	MG/L	18.000																
1721100	003	00229	SODIUM, TOTAL	RECOVERABLE MG/L AS NA ANAL BY ICP						MG/L	21.000	MG/L	21.000																
1721100	004	00937	POTASSIUM, TOTAL	RECOVERABLE MG/L AS K ANAL BY ICP						MG/L	11.000	MG/L	11.000																
1721100	005	01115	ALUMINUM, TOTAL	RECOVERABLE UG/L AS AL ANAL BY ICP						UG/L	256.000	UG/L	256.000																
1721100	006	01007	BARIUM, TOTAL	RECOVERABLE UG/L AS BA ANAL BY ICP						UG/L	1070.000	UG/L	1070.000																
1721100	007	01022	BORON, TOTAL	RECOVERABLE UG/L AS B ANAL BY ICP						UG/L	119.000	UG/L	119.000																
1721100	008	01012	BERYLLIUM, TOTAL	RECOVERABLE UG/L AS BE ANAL BY ICP						UG/L	0.500 <	UG/L	0.500 <																
1721100	009	01027	CADMIUM, TOTAL	RECOVERABLE UG/L AS CD ANAL BY ICP						UG/L	3.000 <	UG/L	3.000 <																
1721100	010	01034	CHROMIUM, TOTAL	RECOVERABLE UG/L AS CR ANAL BY ICP						UG/L	5.000 <	UG/L	5.000 <																
1721100	011	01042	COPPER, TOTAL	RECOVERABLE UG/L AS CU ANAL BY ICP						UG/L	5.000	UG/L	5.000																
1721100	012	01037	COPPER, TOTAL	RECOVERABLE UG/L AS CO ANAL BY ICP						UG/L	5.000 <	UG/L	5.000 <																
1721100	013	01045	IRON, TOTAL	RECOVERABLE UG/L AS FE ANAL BY ICP						UG/L	50.000 <	UG/L	50.000 <																
1721100	014	01025	MANGANESE, TOTAL	RECOVERABLE UG/L AS MN ANAL BY ICP						UG/L	26.000	UG/L	26.000																
1721100	015	01027	NICKEL, TOTAL	RECOVERABLE UG/L AS NI ANAL BY ICP						UG/L	5.000 <	UG/L	5.000 <																
1721100	016	01027	SILVER, TOTAL	RECOVERABLE UG/L AS AG ANAL BY ICP						UG/L	3.000 <	UG/L	3.000 <																
1721100	017	01022	STRONTIUM, TOTAL	RECOVERABLE UG/L AS SR ANAL BY ICP						UG/L	5396.000	UG/L	5396.000																
1721100	018	01027	VANADIUM, TOTAL	RECOVERABLE UG/L AS V ANAL BY ICP						UG/L	5.000 <	UG/L	5.000 <																
1721100	019	01022	ZINC, TOTAL	RECOVERABLE UG/L AS ZN ANAL BY ICP						UG/L	50.000 <	UG/L	50.000 <																
1721100	020	02324	HARDNESS, CALC	MG/L						MG/L	224.000	MG/L	224.000																
SAMPLE NO: 800327200 LOCATION: ROUND LAKE																													
SMPL TYPE: PAF COLLECTOR: J ROWLEY																													
SMPL PURP: 1-ROUTINE COMMENTS:																													
SMPL PRG: C-CHEMICAL OBSRVATNS:																													

SAMPLE NO: 000327200 LOCATION: ROUND LAKE  
SMPL TYPE: PAM COLLECTOR: J ROWLEY  
SMPL PURP: 1-AQUINE COMMENTS:  
SMPL PRG: C-CHEMICAL OBSRVATNS:  
SMPL PERIOD: 03/90 FUND CODE: PW30

COLL DATE: 03/19/90 DELIVERED BY: MAIL  
LAB PCVD: 03/21/90 RECEIVED BY: PMD  
LAB COMPL: 04/27/90 LAB SUPERVISOR: PPF  
SMPL PERIOD: 03/90 FUND CODE: PW30



FACILITY: 0971000 ROUND LAKE		*** CONTINUED ***		STANDARD		TRIGGER	
ANALYSIS	RESULT	NO	DESCRIPTION	UNITS	RESULT	DRINK WTR	LEVEL
101000	001	00400	PH LA, DAPATOPY UNITS	UNITS	8.200		
101000	001	00095	CONDUCTIVITY(CE)-LAJ(UM-OS/CM @ 25 C	UM/CM	580.000		
102000	001	00300	RESIDUE/TOTAL FILTERABLE @130 C,MG/L	MG/L	351.000		
103000	001	00410	ALKALINITY/TOTAL MG/L AS CaCO3	MG/L	172.000		
103000	001	00200	HARDNESS, EDTA MG/L AS CaCO3	MG/L	156.000		
107000	001	00051	FLUORIDE/TOTAL MG/L AS F	MG/L	0.900	4.000	
107000	001	00240	CHLORIDE/TOTAL MG/L AS CL	MG/L	3.500		
107000	001	00245	SULFATE/TOTAL MG/L AS SO4	MG/L	117.000		
110000	001	00250	NITRATE & NITRITE TOTAL MG/L AS N	MG/L	0.100 <	10.000	
111000	001	00610	NITROGEN, AMMONIA TOTAL MG/L AS N	MG/L	0.360		
114000	001	00350	SILICA, TOTAL MG/L AS SiO2	MG/L	14.000		
115000	001	00720	CYANIDE/TOTAL MG/L AS CN	MG/L	0.003 <	0.200	
140000	001	01002	ARSENIC, TOTAL RECOVERABLE UG/L AS AS	UG/L	1.000 <	50.000	
151000	001	01051	LEAD, TOTAL RECOVERABLE UG/L AS Pb	UG/L	3.000 <	50.000	
155000	001	01100	MERCURY, TOTAL UG/L AS Hg	UG/L	0.050 <	2.000	
155000	001	01147	SELENIUM, TOTAL RECOVERABLE UG/L AS SE	UG/L	1.000 <	10.000	
177000	001	01116	CALCIUM, TOTAL RECOVERABLE MG/L AS Ca ANAL BY ICP	MG/L	31.000		
177000	002	01227	MAGNESIUM, TOTAL RECOVERABLE MG/L AS Ca ANAL BY ICP	MG/L	21.000		
177000	003	01227	SODIUM, TOTAL RECOVERABLE MG/L AS Na ANAL BY ICP	MG/L	58.000		
177000	004	01237	POTASSIUM, TOTAL RECOVERABLE MG/L AS K ANAL BY ICP	MG/L	2.400		
177000	005	01135	ALUMINUM, TOTAL RECOVERABLE UG/L AS AL ANAL BY ICP	UG/L	50.000 <		
177000	006	01007	BARIUM, TOTAL RECOVERABLE UG/L AS Ba ANAL BY ICP	UG/L	23.000	1000.000	
177000	007	01222	MOLYB, TOTAL RECOVERABLE UG/L AS Mo ANAL BY ICP	UG/L	462.000		
177000	008	01012	BERYLLIUM, TOTAL RECOVERABLE UG/L AS Be ANAL BY ICP	UG/L	0.500 <		
177000	009	01027	CADMIUM, TOTAL RECOVERABLE UG/L AS Cd ANAL BY ICP	UG/L	3.000 <	10.000	
177000	010	01034	CHROMIUM, TOTAL RECOVERABLE UG/L AS Cr ANAL BY ICP	UG/L	5.000 <	50.000	
177000	011	01242	COPPER, TOTAL RECOVERABLE UG/L AS Cu ANAL BY ICP	UG/L	5.000 <	5000.000	
177000	012	01037	COBALT, TOTAL RECOVERABLE UG/L AS Co ANAL BY ICP	UG/L	5.000 <		
177000	013	01245	IRON, TOTAL RECOVERABLE, UG/L AS Fe ANAL BY ICP	UG/L	195.000	1000.000	
177000	014	01055	MANGANESE, TOTAL RECOVERABLE UG/L AS Mn ANAL BY ICP	UG/L	7.000	150.000	
177000	015	01267	NICKEL, TOTAL RECOVERABLE UG/L AS Ni ANAL BY ICP	UG/L	6.000		
177000	016	01077	SILVER, TOTAL RECOVERABLE UG/L AS Ag ANAL BY ICP	UG/L	3.000 <	50.000	
177000	017	01072	STRONTIUM, TOTAL RECOVERABLE UG/L AS Sr ANAL BY ICP	UG/L	1314.000		
177000	018	01087	VANADIUM, TOTAL RECOVERABLE UG/L AS V ANAL BY ICP	UG/L	5.000 <		
177000	019	01122	ZINC, TOTAL RECOVERABLE UG/L AS Zn ANAL BY ICP	UG/L	50.000 <	5000.000	
177000	020	02396	HARDNESS, CALC - MG/L	MG/L	161.000		



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF PUBLIC WATER SUPPLIES  
SELECTED SAMPLE EXPANDED REPORT

PAGE: 16  
DATE: 01/24/94

REPORT: 160444  
MODULE: 160444

FACILITY: 0271500 ROUND LAKE		STATUS: A		PUBLIC: Y		COMM: Y		TYPE WATER:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
TAP: 1		STATUS: A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
RAW SRC: 20298 WELL 1 REAR 322 RAILROAD AVE		STATUS: A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
SAMPLE NO: 2004731		LOCATION: WELL		COLLECTOR: IEPA SMPL COLLECTOR		COLL DATE: 01/07/87		DELIVERED BY:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
SAMPL TYPE: RAW						LAB RCVD: 00/00/00		RECEIVED BY:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
SAMPL PUMP: 5-SPEC/OHR		COMMENTS:				LAB COMPL: 00/00/00		LAB SUPERVISOR:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
SAMPL PUMP: 1-JM INCRS OBSRVATNS:						SAMPL PERIOD: 01/87		FUND CODE:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
<table border="1"> <thead> <tr> <th colspan="2">ANALYSIS</th> <th colspan="2">STORC</th> <th colspan="2">UNITS</th> <th colspan="2">RESULT</th> <th colspan="2">PAW WTR</th> <th colspan="2">TRIGGER</th> </tr> <tr> <th>ID</th> <th>NO</th> <th>NO</th> <th>NO</th> <th>DESCRIPTION</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>LEVEL</th> </tr> </thead> <tbody> <tr> <td>0000001</td> <td>001</td> <td>00610</td> <td></td> <td>NITROGEN, AMMONIA TOTAL MG/L AS N</td> <td></td> <td>0.210</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>002</td> <td>00530</td> <td></td> <td>NITRATE &amp; NITRITE TOTAL MG/L AS N</td> <td></td> <td>0.100</td> <td></td> <td>10.000</td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>003</td> <td>00565</td> <td></td> <td>PHOSPHORUS, TOTAL MG/L AS P</td> <td></td> <td>0.010</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>004</td> <td>00723</td> <td></td> <td>CYANIDE, TOTAL MG/L AS CN</td> <td></td> <td>0.010</td> <td></td> <td>0.200</td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>005</td> <td>00916</td> <td></td> <td>CALCIUM, TOTAL RECOVERABLE MG/L AS CA ANAL BY ICP</td> <td></td> <td>29.000</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>006</td> <td>00927</td> <td></td> <td>MAGNESIUM, TOTAL RECOVERABLE MG/L AS CA ANAL BY ICP</td> <td></td> <td>20.000</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>007</td> <td>00929</td> <td></td> <td>SODIUM, TOTAL RECOVERABLE MG/L AS NA ANAL BY ICP</td> <td></td> <td>62.000</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>008</td> <td>00937</td> <td></td> <td>POTASSIUM, TOTAL RECOVERABLE MG/L AS K ANAL BY ICP</td> <td></td> <td>1.000</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>009</td> <td>00940</td> <td></td> <td>CHLORIDE, TOTAL MG/L AS CL</td> <td></td> <td>2.200</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>010</td> <td>00945</td> <td></td> <td>SULFATE, TOTAL MG/L AS SO4</td> <td></td> <td>139.000</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>011</td> <td>00951</td> <td></td> <td>FLUORIDE, TOTAL MG/L AS F</td> <td></td> <td>1.000</td> <td></td> <td>4.000</td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>012</td> <td>00956</td> <td></td> <td>SILICA, TOTAL MG/L AS SiO2</td> <td></td> <td>13.000</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>013</td> <td>00959</td> <td></td> <td>SILICA, TOTAL MG/L AS SiO2</td> <td></td> <td>13.000</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>014</td> <td>01002</td> <td></td> <td>ARSENIC, TOTAL RECOVERABLE UG/L AS AS</td> <td></td> <td>1.000</td> <td></td> <td>50.000</td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>015</td> <td>01007</td> <td></td> <td>BARIUM, TOTAL RECOVERABLE UG/L AS BA ANAL BY ICP</td> <td></td> <td>7.000</td> <td></td> <td>1000.000</td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>016</td> <td>01012</td> <td></td> <td>GERMYLLIUM, TOTAL RECOVERABLE UG/L AS GE ANAL BY ICP</td> <td></td> <td>0.500</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>017</td> <td>01022</td> <td></td> <td>HORON, TOTAL RECOVERABLE UG/L AS H ANAL BY ICP</td> <td></td> <td>551.000</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>018</td> <td>01027</td> <td></td> <td>CADMIUM, TOTAL RECOVERABLE UG/L AS CD ANAL BY ICE</td> <td></td> <td>3.000</td> <td></td> <td>10.000</td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>019</td> <td>01034</td> <td></td> <td>CHROMIUM, TOTAL RECOVERABLE UG/L AS CR ANAL BY ICP</td> <td></td> <td>5.000</td> <td></td> <td>50.000</td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>020</td> <td>01037</td> <td></td> <td>COPALT, TOTAL RECOVERABLE UG/L AS CO ANAL BY ICP</td> <td></td> <td>5.000</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>021</td> <td>01042</td> <td></td> <td>COPPER, TOTAL RECOVERABLE UG/L AS CU ANAL BY ICP</td> <td></td> <td>5.000</td> <td></td> <td>5000.000</td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>022</td> <td>01045</td> <td></td> <td>IRON, TOTAL RECOVERABLE UG/L AS FE ANAL BY ICP</td> <td></td> <td>75.000</td> <td></td> <td>1000.000</td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>023</td> <td>01051</td> <td></td> <td>LEAD, TOTAL RECOVERABLE UG/L AS PB</td> <td></td> <td>5.000</td> <td></td> <td>50.000</td> <td></td> <td></td> <td></td> </tr> <tr> <td>0000001</td> <td>024</td> <td>01053</td> <td></td> <td>MANGANESE, TOTAL RECOVERABLE UG/L AS MN ANAL BY ICP</td> <td></td> <td>5.000</td> 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ICP		29.000						0000001	006	00927		MAGNESIUM, TOTAL RECOVERABLE MG/L AS CA ANAL BY ICP		20.000						0000001	007	00929		SODIUM, TOTAL RECOVERABLE MG/L AS NA ANAL BY ICP		62.000						0000001	008	00937		POTASSIUM, TOTAL RECOVERABLE MG/L AS K ANAL BY ICP		1.000						0000001	009	00940		CHLORIDE, TOTAL MG/L AS CL		2.200						0000001	010	00945		SULFATE, TOTAL MG/L AS SO4		139.000						0000001	011	00951		FLUORIDE, TOTAL MG/L AS F		1.000		4.000				0000001	012	00956		SILICA, TOTAL MG/L AS SiO2		13.000						0000001	013	00959		SILICA, TOTAL MG/L AS SiO2		13.000						0000001	014	01002		ARSENIC, TOTAL RECOVERABLE UG/L AS AS		1.000		50.000				0000001	015	01007		BARIUM, TOTAL RECOVERABLE UG/L AS BA ANAL BY ICP		7.000		1000.000				0000001	016	01012		GERMYLLIUM, TOTAL RECOVERABLE UG/L AS GE ANAL BY ICP		0.500						0000001	017	01022		HORON, TOTAL RECOVERABLE UG/L AS H ANAL BY ICP		551.000						0000001	018	01027		CADMIUM, TOTAL RECOVERABLE UG/L AS CD ANAL BY ICE		3.000		10.000				0000001	019	01034		CHROMIUM, TOTAL RECOVERABLE UG/L AS CR ANAL BY ICP		5.000		50.000				0000001	020	01037		COPALT, TOTAL RECOVERABLE UG/L AS CO ANAL BY ICP		5.000						0000001	021	01042		COPPER, TOTAL RECOVERABLE UG/L AS CU ANAL BY ICP		5.000		5000.000				0000001	022	01045		IRON, TOTAL RECOVERABLE UG/L AS FE ANAL BY ICP		75.000		1000.000				0000001	023	01051		LEAD, TOTAL RECOVERABLE UG/L AS PB		5.000		50.000				0000001	024	01053		MANGANESE, TOTAL RECOVERABLE UG/L AS MN ANAL BY ICP		5.000		150.000				0000001	025	01067		NICKEL, TOTAL RECOVERABLE UG/L AS NI ANAL BY ICP		5.000						0000001	026	01077		SILVER, TOTAL RECOVERABLE UG/L AS AG ANAL BY ICP		3.000		50.000				0000001	027	01082		STRONTIUM, TOTAL RECOVERABLE UG/L AS SR ANAL BY ICP		968.000						0000001	028	01087		VANADIUM, TOTAL RECOVERABLE UG/L AS V ANAL BY ICP		5.000						0000001	029	01092		ZINC, TOTAL RECOVERABLE UG/L AS ZN ANAL BY ICP		50.000		5000.000				0000001	030	01105		ALUMINUM, TOTAL RECOVERABLE UG/L AS AL ANAL BY ICP		50.000						0000001	031	01147		SELENIUM, TOTAL RECOVERABLE UG/L AS SE		1.000		10.000				0000001	032	01722		PHENOLS, TOTAL RECOVERABLE UG/L		5.000						0000001	033	01730		RESIDUE, TOTAL FILTERABLE 0180 CMG/L		533.000						0000001	034	01730		MERCURY, TOTAL UG/L AS HG		0.050		2.000				0000001	035	00357		FLOW (PUMPING) RATE GAL/MIN		145.000						0000001	036	00357		FLOW (PUMPING) TIME PRIOR TO SAMPLING MIN		385.000						0000001	037	00410				167.000					
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SAMPLE NO: 2004731 LOCATION: WELL COLLECTOR: IEPA SMPL COLLECTOR COLL DATE: 01/07/87 DELIVERED BY:  
SAMPL TYPE: RAW



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF PUBLIC WATER SUPPLIES  
SELECTED SAMPLE EXPANDED REPORT

PAGE: 002  
DATE: 01/25/94

FACILITY: 077100 ROUND LAKE										*** CONTINUED ***									
SMPL PURP: S-SPEC/DTHR COMMENTS:										LAB COMPL: 00/00/00 LAB SUPERVISOR:									
SMPL PRG: V-VOC										SMPL PERIOD: 01/37 FUND CODE:									
ANALYSIS RSLT NO NO NO DESCRIPTION										UNITS RESULT DRINK WTR RAW WTR TRIGGER LEVEL									
000001 001 32101 GROMODICHLOROMETHANE UG/L CG/MS										1.000 <									
000001 002 32102 CARBON TETRACHLORIDE UG/L CG/MS										1.000 <									
000001 003 32103 1,2-DICHLOROETHANE UG/L CG/MS										1.000 <									
000001 004 32104 BROMOFORM UG/L CG/MS										1.000 <									
000001 005 32105 DIBROMOCHLOROMETHANE UG/L CG/MS										1.000 <									
000001 006 32106 CHLOROFORM UG/L CG/MS										1.000 <									
000001 007 34010 TOLUENE UG/L										1.000 <									
000001 008 34120 BENZENE UG/L										1.000 <									
000001 009 34301 CHLOROBENZENE UG/L										1.000 <									
000001 010 34371 ETHYLENE UG/L										1.000 <									
000001 011 34423 METHYLENE CHLORIDE UG/L										1.000 <									
000001 012 34473 TETRACHLOROETHYLENE UG/L GC/MS										1.000 <									
000001 013 34496 1,1-DICHLOROETHANE UG/L GC/MS										1.000 <									
000001 014 34501 1,1-DICHLOROETHYLENE UG/L GC/MS										1.000 <									
000001 015 34506 1,1,1-TRICHLOROETHANE UG/L GC/MS										1.000 <									
000001 016 34545 TRANS-1,2-DICHLOROETHYLENE UG/L GC/MS										1.000 <									
000001 017 39180 TRICHLOROETHYLENE UG/L										1.000 <									
000001 018 00000 FLOW (PUMPING) RATE GAL/MIN										145.000									
000001 019 72004 FLOW (PUMPING) TIME PRIOR TO SAMPLING MIN										385.000									
000001 020 70410										167.000									
FACILITY: 077100 ROUND LAKE										STATUS: A PUBLIC: Y COMM: Y TYPE WATER:									
TAP: 02 WELL 2										STATUS: A									
RAW WTR: 00000 WELL 2 REAR 400 N CEDAR LAKE ROAD										STATUS: A									
SAMPLE NO: 200-739 LOCATION: WELL										COLL DATE: 09/06/95 DELIVERED BY:									
SMPL TYPE: RAW										LAB RCVD: 00/00/00 RECEIVED BY:									
SMPL PURP: S-SPEC/DTHR COMMENTS:										LAB COMPL: 00/00/00 LAB SUPERVISOR:									
SMPL PRG: I-GW4 INORG OBSRVATMS:										SMPL PERIOD: 09/85 FUND CODE:									
ANALYSIS RSLT NO NO NO DESCRIPTION										UNITS RESULT DRINK WTR RAW WTR TRIGGER LEVEL									
000001 001 00010 NITROGEN,AMMONIA TOTAL MG/L AS N										0.380									
000001 002 00630 NITRATE & NITRITE TOTAL MG/L AS N										0.100 <									
000001 003 00505 PHOSPHORUS, TOTAL MG/L AS P										0.010									
000001 004 00720 CYANIDE, TOTAL MG/L AS CN										0.010 <									
000001 005 00215 CALCIUM, TOTAL RECOVERABLE MG/L AS CA ANAL BY ICP										29.000									
000001 006 00927 MAGNESIUM, TOTAL RECOVERABLE MG/L AS MA ANAL BY ICP										21.000									
000001 007 00927 SODIUM, TOTAL RECOVERABLE MG/L AS NA ANAL BY ICP										59.000									
000001 008 00937 POTASSIUM, TOTAL RECOVERABLE MG/L AS K ANAL BY ICP										1.400									
000001 009 00943 CHLORIDE, TOTAL MG/L AS CL										2.400									
000001 010 00945 SULFATE, TOTAL MG/L AS SO4										114.000									
000001 011 00951 FLUORIDE, TOTAL MG/L AS F										1.000									
000001 012 00951 FLUORIDE, TOTAL MG/L AS F										4.000									



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FACILITY: 0971500 ROUND LAKE

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0000001	012	00956	SILICA, TOTAL MG/L AS SiO2	14.000	
0000001	013	01002	ARSENIC, TOTAL RECOVERABLE UG/L AS AS	1.100 <	50.000
0000001	014	01007	BARITE, TOTAL RECOVERABLE UG/L AS BA ANAL BY ICP	19.000	1000.000
0000001	015	01012	BERYLLIUM, TOTAL RECOVERABLE UG/L AS BE ANAL BY ICP	0.500 <	
0000001	016	01022	BORON, TOTAL RECOVERABLE UG/L AS B ANAL BY ICP	510.000	
0000001	017	01027	CADMIUM, TOTAL RECOVERABLE UG/L AS CD ANAL BY ICP	3.000 <	10.000
0000001	018	01034	CHROMIUM, TOTAL RECOVERABLE UG/L AS CR ANAL BY ICP	5.000 <	50.000
0000001	019	01037	COBALT, TOTAL RECOVERABLE UG/L AS CO ANAL BY ICP	5.000 <	
0000001	020	01042	COPPER, TOTAL RECOVERABLE UG/L AS CU ANAL BY ICP	5.000 <	5000.000
0000001	021	01045	IRON, TOTAL RECOVERABLE UG/L AS FE ANAL BY ICP	89.000	1000.000
0000001	022	01051	LEAD, TOTAL RECOVERABLE UG/L AS PB	5.000 <	50.000
0000001	023	01055	MANGANESE, TOTAL RECOVERABLE UG/L AS MN ANAL BY ICP	5.000 <	150.000
0000001	024	01067	NICKEL, TOTAL RECOVERABLE UG/L AS NI ANAL BY ICP	5.000 <	
0000001	025	01077	SILVER, TOTAL RECOVERABLE UG/L AS AG ANAL BY ICP	3.000 <	50.000
0000001	026	01082	STRONTIUM, TOTAL RECOVERABLE UG/L AS SR ANAL BY ICP	976.000	
0000001	027	01087	TUNGSTEN, TOTAL RECOVERABLE UG/L AS W ANAL BY ICP	5.000 <	
0000001	028	01092	ZINC, TOTAL RECOVERABLE UG/L AS ZN ANAL BY ICP	50.000 <	5000.000
0000001	029	01100	ALUMINUM, TOTAL RECOVERABLE UG/L AS AL ANAL BY ICP	50.000 <	
0000001	030	01147	SELENIUM, TOTAL RECOVERABLE UG/L AS SE	1.000 <	10.000
0000001	031	01250	PHENOLS, TOTAL RECOVERABLE UG/L	5.000 <	
0000001	032	01309	RESIDUE, TOTAL FILTERABLE @180 C, MG/L	390.000	
0000001	033	01320	MERCURY, TOTAL UG/L AS HG	0.010 <	2.000
0000001	034	00010	WATER TEMPERATURE DEG C	12.500	
0000001	035	00039	FLOW (PUMPING) RATE GAL/MIN	300.000	
0000001	036	00090	OXIDATION-REDUCTION POTENTIAL (EH) MILLIVOLTS	185.000-	
0000001	037	00095	CONDUCTIVITY (EC)-LAKE (UMHQS/CM @ 25 C	535.000	
0000001	038	00400	PH PH UNITS	8.000	
0000001	039	00410	ALKALINITY, TOTAL MG/L AS CaCO3	176.000	
0000001	040	00404	FLOW (PUMPING) TIME PRIOR TO SAMPLING MIN	90.000	
0000001	041	00417	DEPTH FROM LAND SURFACE TO WATER SURFACE	59.000	
0000001	042	00410		171.000	

SAMPLE NO: 0024846 LOCATION: WELL #2  
COLLECTOR: RANDALL FIENBACH  
SMPL PURP: 1-ROUTINE COMMENTS:  
SMPL PRIO: 1-24M 14000 JUSOVAINS  
COLL DATE: 02/09/83 DELIVERED BY:  
LAB RCVD: 03/15/83 RECEIVED BY:  
LAB COMPL: LAB SUPERVISOR:  
SMPL PERIOD: 02/83 FUND CODE:

ANALYSIS RESULT -----STOP-T-----  
UNITS RESULT DRINK WTR RAW WTR TRIGGER LEVEL

00095	CONDUCTIVITY (EC)-LAB (UMHQS/CM @ 25 C	540.000		
00423	PH LABORATORY UNITS	8.100		
00410	ALKALINITY, TOTAL MG/L AS CaCO3	163.000		
00410	NITROGEN, AMMONIA TOTAL MG/L AS N	0.410		
00430	NITRATE & NITRITE TOTAL MG/L AS N	0.100 <	10.000	
00420	CYANIDE, TOTAL MG/L AS CN	0.005 <	0.200	
00400	HARDNESS, EDTA MG/L AS CaCO3	159.000		
00410	CALCIUM, TOTAL RECOVERABLE MG/L AS Ca ANAL BY ICP	30.000		
00427	MAGNESIUM, TOTAL RECOVERABLE MG/L AS Mg ANAL BY ICP	20.000		
00420	SODIUM, TOTAL RECOVERABLE MG/L AS Na ANAL BY ICP	53.000		



FACILITY: 0971500 ROUND LAKE		*** CONTINUED ***	
00937	POTASSIUM, TOTAL RECOVERABLE MG/L AS K ANAL BY ICP	1.300	
00940	CHLORIDE, TOTAL MG/L AS CL	1.300	
00945	SULFATE, TOTAL MG/L AS SO4	120.000	
00951	FLUORIDE, TOTAL MG/L AS F	0.890	4.000
00955	SILICA, TOTAL MG/L AS SiO2	14.000	
01002	ARSENIC, TOTAL RECOVERABLE UG/L AS AS	1.000	50.000
01007	BARIUM, TOTAL RECOVERABLE UG/L AS BA ANAL BY ICP	25.000	1000.000
01012	BERYLLIUM, TOTAL RECOVERABLE UG/L AS BE ANAL BY ICP	0.500	
01022	BORON, TOTAL RECOVERABLE UG/L AS B ANAL BY ICP	500.000	
01027	CADMIUM, TOTAL RECOVERABLE UG/L AS CD ANAL BY ICP	3.000	10.000
01034	CHROMIUM, TOTAL RECOVERABLE UG/L AS CR ANAL BY ICP	5.000	50.000
01037	COBALT, TOTAL RECOVERABLE UG/L AS CO ANAL BY ICP	5.000	
01042	COPPER, TOTAL RECOVERABLE UG/L AS CU ANAL BY ICP	3.000	5000.000
01045	IRON, TOTAL RECOVERABLE UG/L AS FE ANAL BY ICP	100.000	1000.000
01051	LEAD, TOTAL RECOVERABLE UG/L AS PB	5.000	50.000
01055	MANGANESE, TOTAL RECOVERABLE UG/L AS MN ANAL BY ICP	5.000	150.000
01067	NICKEL, TOTAL RECOVERABLE UG/L AS NI ANAL BY ICP	3.000	
01077	SILVER, TOTAL RECOVERABLE UG/L AS AG ANAL BY ICP	5.000	50.000
01082	STRONTIUM, TOTAL RECOVERABLE UG/L AS SR ANAL BY ICP	1030.000	
01127	VANADIUM, TOTAL RECOVERABLE UG/L AS V ANAL BY ICP	4.000	
01092	ZINC, TOTAL RECOVERABLE UG/L AS ZN ANAL BY ICP	2.000	5000.000
01147	ZELFNIUM, TOTAL RECOVERABLE UG/L AS ZE	1.000	10.000
70300	RESIDUE, TOTAL FILTERABLE 0180 CMG/L	372.000	
70304	TOTAL DISSOLVED SOLIDS MG/L BY EC	320.000	
71200	MERCURY, TOTAL UG/L AS HG	0.050	2.000
SAMPLE NO: Z004733 LOCATION: WELL			
COLLECTOR: IEPA CMPL COLLECTOR			
SAMPL TYPE: RAW			
SAMPL PURP: S-SPEC/OTHR COMMENTS:			
SAMPL PRIO: V-VOC			
DELIVERED BY: COLL DATE: 08/06/85			
RECEIVED BY: LAB RCVD: 00/00/00			
LAB COMPL: 00700700 LAB SUPERVISOR:			
FUND CODE: SMPL PERIOD: 03/95			
STANDARD: STANDARD			
RAW WTR			
TRYJED			
LEVEL			
0000001	001 32101 BROMODICHLOROMETHANE UG/L CG/MS	1.000	
0000001	002 32102 CARBON TETRACHLORIDE UG/L CG/MS	1.000	5.000
0000001	003 32103 1,2-DICHLOROETHANE UG/L	1.000	5.000
0000001	004 32104 BROMOFORM UG/L CG/MS	1.000	
0000001	005 32105 DIBROMOCHLOROMETHANE UG/L CG/MS	1.000	
0000001	006 32106 CHLOROFORM UG/L CG/MS	1.000	
0000001	007 34010 TOLUENE UG/L	1.000	1000.000
0000001	008 34011 BENZENE UG/L	1.000	5.000
0000001	009 34301 CHLOROBENZENE UG/L	1.000	100.000
0000001	010 34371 ETHYLBENZENE UG/L	1.000	700.000
0000001	011 34423 METHYLENE CHLORIDE UG/L	1.000	5.000
0000001	012 34475 TETRACHLOROETHYLENE UG/L GC/MS	1.000	5.000
0000001	013 34496 1,1-DICHLOROETHANE UG/L GC/MS	1.000	
0000001	014 34521 1,1-DICHLOROETHYLENE UG/L GC/MS	1.000	7.000
0000001	015 34509 1,1,1-TRICHLOROETHANE UG/L GC/MS	1.000	200.000
0000001	016 34113 TRICHLOROETHYLENE UG/L	1.000	5.000



FACILITY: 0971, JO ROUND LAKE

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[illegible]



FACILITY: 0971-00 ROUND LAKE *** CONTINUED ***									
NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
000001	029	01022	ZINC, TOTAL RECOVERABLE UG/L AS ZN ANAL BY ICP	50.000 <	5000.000				
000001	030	01135	ALUMINUM, TOTAL RECOVERABLE UG/L AS AL ANAL BY ICP	50.000 <					
000001	031	01147	SELENIUM, TOTAL RECOVERABLE UG/L AS SE	1.000 <	10.000				
000001	032	02739	PHENOLS, TOTAL RECOVERABLE UG/L	5.000 <					
000001	033	03300	RESIDUE, TOTAL FILTERABLE 3130 C, MG/L	375.000					
000001	034	01400	MERCURY, TOTAL UG/L AS HG	0.050 <	2.000				
000001	035	00010	WATER TEMPERATURE DEG C	15.500					
000001	036	00059	FLOW (PUMPING) RATE GAL/MIN	50.000					
000001	037	00090	OXIDATION-REDUCTION POTENTIAL (EH) MILLIVOLTS	88.000-					
000001	038	00125	CONDUCTIVITY (EC)-LAB (UMHOS/CM @ 25 C	515.000					
000001	039	00400	PH PH UNITS	7.400					
000001	040	02034	FLOW (PUMPING) TIME PRIOR TO SAMPLING MIN	60.000					
000001	041	00410		59.000					
SAMPLE NO: 0002237 LOCATION: WELL #3									
ANAL TYPE: RAW COLLECTOR: PANDALL FIENRACH									
SAMPL PURP: 1-ROUTINE COMMENTS:									
SAMPL PRIO: 1-544 INORG ORGANICS:									
COLL DATE: 07/19/82 DELIVERED BY:									
LAB RCVD: 09/08/82 RECEIVED BY:									
LAB COMPL: LAB SUPERVISOR:									
SMPL PERIOD: 07/82 FUND CODE:									
STANDARDS									
NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
DESCRIPTION	UNITS	RESULT	DRINK WTR	RAW WTR	TRIGGER LEVEL				
00025 CONDUCTIVITY (EC)-LAB (UMHOS/CM @ 25 C		320.000							
00433 PH LABORATORY UNITS		7.300							
00410 ALKALINITY, TOTAL MG/L AS CaCO3		270.000							
00510 NITROGEN, AMMONIA TOTAL MG/L AS N		0.190							
00630 NITRATE & NITRITE TOTAL MG/L AS N		0.100 <	10.000						
00720 CYANIDE, TOTAL MG/L AS CN		0.005 <	0.200						
00800 HARDNESS, EDTA MG/L AS CaCO3		219.000							
00915 CALCIUM, TOTAL RECOVERABLE MG/L AS Ca ANAL BY ICP		59.000							
00927 MAGNESIUM, TOTAL RECOVERABLE MG/L AS Ca ANAL BY ICP		19.000							
00929 SODIUM, TOTAL RECOVERABLE MG/L AS Na ANAL BY ICP		21.000							
00937 POTASSIUM, TOTAL RECOVERABLE MG/L AS K ANAL BY ICP		11.000							
00940 CHLORIDE, TOTAL MG/L AS CL		6.500							
00945 SULFATE, TOTAL MG/L AS SO4		18.000							
00951 FLUORIDE, TOTAL MG/L AS F		0.970	4.000						
00956 SILICA, TOTAL MG/L AS SiO2		7.000							
01002 ARSENIC, TOTAL RECOVERABLE UG/L AS AS		1.000 <	50.000						
01007 BARIUM, TOTAL RECOVERABLE UG/L AS Ba ANAL BY ICP		1000.000	1000.000						
01012 BERYLLIUM, TOTAL RECOVERABLE UG/L AS Be ANAL BY ICP		0.500 <							
01022 BORON, TOTAL RECOVERABLE UG/L AS B ANAL BY ICP		150.000							
01027 CADMIUM, TOTAL RECOVERABLE UG/L AS Cd ANAL BY ICP		3.000 <	10.000						
01034 CHROMIUM, TOTAL RECOVERABLE UG/L AS Cr ANAL BY ICP		5.000 <	50.000						
01037 COBALT, TOTAL RECOVERABLE UG/L AS Co ANAL BY ICP		5.000 <							
01042 COPPER, TOTAL RECOVERABLE UG/L AS Cu ANAL BY ICP		6.000	5000.000						
01045 IRON, TOTAL RECOVERABLE, UG/L AS Fe ANAL BY ICP		220.000	1000.000						
01051 LEAD, TOTAL RECOVERABLE UG/L AS Pb		5.000 <	50.000						
01055 MANGANESE, TOTAL RECOVERABLE UG/L AS Mn ANAL BY ICP		5.000 <	150.000						
01067 NICKEL, TOTAL RECOVERABLE UG/L AS Ni ANAL BY ICP		3.000 <							
01077 SILVER, TOTAL RECOVERABLE UG/L AS Ag ANAL BY ICP		5.000 <	50.000						



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FACILITY: U971500 ROUND LAKE		*** CONTINUED ***						
01052	STRONTIUM/TOTAL RECOVERABLE UG/L AS SR ANAL BY ICP	5860.000						
01057	VANADIUM/TOTAL RECOVERABLE UG/L ASV ANAL BY ICP	4.000 <						
01092	ZINC/TOTAL RECOVERABLE UG/L AS ZN ANAL BY ICP	2.000 <	5000.000					
01147	SELENIUM/TOTAL RECOVERABLE UG/L AS SE	1.000 <	10.000					
70300	RESIDUE/TOTAL FILTERABLE 2530 C/MG/L	270.000						
70304	TOTAL DISSOLVED SOLIDS F&S/L BY EC	710.000						
71900	MERCURY/TOTAL UG/L AS HG	0.050 <	2.000					
SAMPLE NO: 2004717 LOCATION: WELL								
SPL TYPE: RAW		COLLECTOR: IEPA SPL COLLECTOR						
SAMPL PURP: S-SPEC/OTHR COMMENTS:		LAB RCVD: 00/00/00 RECEIVED BY:						
SAMPL PROJ: S-VOC OBSRVATNS:		LAB COMPL: 00/00/00 LAB SUPERVISOR:						
		SAMPL PERIOD: 01/87 FUND CODE:						
COLL DATE: 01/07/57 DELIVERED BY:								
LAB RCVD: 00/00/00 RECEIVED BY:								
LAB COMPL: 00/00/00 LAB SUPERVISOR:								
SAMPL PERIOD: 01/87 FUND CODE:								
STANDARD								
RAW WTR								
LEVEL								
TRIGGER								
ANALYSIS	NO	NO	DESCRIPTION	UNITS	RESULT	DRINK WTR	RAW WTR	LEVEL
0000001	001	32101	BROMODICHLOROMETHANE UG/L CG/MS		1.000 <			
0000001	002	32102	CARBON TETRACHLORIDE UG/L CG/MS		1.000 <	5.000		
0000001	003	32103	1,2-DICHLOROETHANE UG/L		1.000 <	5.000		
0000001	004	32104	PERMETHYL UG/L CG/MS		1.000 <			
0000001	005	32105	DIBROMOCHLOROMETHANE UG/L GC/MS		1.000 <			
0000001	006	32106	CHLOROFORM UG/L GC/MS		1.000 <			
0000001	007	34019	TOLUENE UG/L		1.000 <	1000.000		
0000001	008	34030	BENZENE UG/L		1.000 <	5.000		
0000001	009	34301	CHLOROBENZENE UG/L		1.000 <	100.000		
0000001	010	34371	ETHYLBENZENE UG/L		1.000 <	700.000		
0000001	011	34423	METHYLENE CHLORIDE UG/L		1.000 <	5.000		
0000001	012	34475	TETRACHLOROETHYLENE UG/L GC/MS		1.000 <	5.000		
0000001	013	34496	1,1-DICHLOROETHYLENE UG/L GC/MS		1.000 <			
0000001	014	34501	1,1-DICHLOROETHYLENE UG/L GC/MS		1.000 <	7.000		
0000001	015	34506	1,1,1-TRICHLOROETHANE UG/L GC/MS		1.000 <	200.000		
0000001	016	34546	TRANS-1,2-DICHLOROETHYLENE UG/L GC/MS		1.000 <	100.000		
0000001	017	39153	TRICHLOROETHYLENE UG/L		1.000 <	5.000		
0000001	018	39210	WATER TEMPERATURE DEG C		15.500			
0000001	019	39359	FLOW (PUMPING) RATE GAL/MIN		450.000			
0000001	020	39391	OXIDATION-REDUCTION POTENTIAL (EH) MILLIVOLTS		88.000-			
0000001	021	39395	CONDUCTIVITY(CEC)-LAB(UHHS)/CM @ 25 C		515.000			
0000001	022	39433	PH PH UNIT		7.400			
0000001	023	72084	FLOW (PUMPING) TIME PRIOR TO SAMPLING MIN		60.000			
0000001	024	72084	TIME PRIOR TO SAMPLING MIN		259.000			



## ROUND LAKE

The village of Round Lake (1531) installed a public water supply in 1914. One well (No. 2) is in use and another well (No. 1) is available for emergency use. This supply was cross connected with Round Lake Park in October 1951, but water from Round Lake Park has not been used for several years. In 1949 there were 140 services, all metered; the average and maximum daily pumpages were 50,000 and 75,000 gpd, respectively. In 1973 there were 500 services, all metered; the average and maximum daily pumpages were 190,000 and 280,000 gpd, respectively. The water is chlorinated. The natural fluoride concentration in the water is adequate to satisfy state requirements.

WELL NO. 1, finished in Silurian dolomite, was completed in 1912 to a depth of 350 ft by Adam Titus, Libertyville. This well is available for emergency use. The well is located in the rear of the village hall, about 110 ft south of the Chicago, Milwaukee, and St. Paul RR and 430 ft east of Cedar Lake Road, approximately 1550 ft S and 2400 ft W of the NE corner of Section 29, T45N, R10E. The land surface elevation at the well is approximately 798 ft.

A 6-in. diameter hole was drilled to a depth of 350 ft. The well is cased with 6-in. pipe from land surface to a depth of 230 ft.

Upon completion, water was pumped at a rate of 150 gpm for 24 hr. The water returned to its original level soon after the pump was stopped. In the summer of 1922 when the pump was pulled, the depth to water was 43 ft below the pump base.

In January 1945, the well reportedly produced 175 gpm for 1.5 hr with a drawdown of 10 ft from a nonpumping water level of 40 ft below the pump base.

The pumping equipment presently installed consists of a 10-hp 1750 rpm General Electric Induction motor (No. 5345661), a 6-in., 16-stage Cook turbine pump (Serial No. 1912) set at 150 ft, rated at 130 gpm, and has 150 ft of 4-in. OD column pipe. The well is equipped with 150 ft of airline without a gage.

A mineral analysis of a sample (Lab. No. 107669) collected September 10, 1946, after pumping for 4 hr at 125 gpm, showed the water to have a hardness of 165 mg/l, total dissolved minerals of 434 mg/l, and an iron content of 0.1 mg/l.

WELL NO. 2, finished in Silurian dolomite, was completed in May 1945 to a depth of 359 ft by Henry Boysen, Jr., Libertyville, and filled in to a 333-ft depth by the Aurora Pump Co. during the summer of 1963. The well is located in the rear of the village garage, about 360 ft north of the main track of the Chicago, Milwaukee, and St. Paul RR and 80 ft west of the center line of Cedar Lake Road, approximately 600 ft S and 2175 ft E of the NW corner of Section 29, T45N, R10E. The land surface elevation at the well is approximately 790 ft.

A sample study log of Well No. 2 furnished by the State Geological Survey follows:

Strata	Thickness (ft)	Depth (ft)
PLEISTOCENE SYSTEM		
Clay, glacial till and silt	169	169
Sand and gravel	2	171
Sand, silty	44	215
Sand and gravel	10	225
SILURIAN SYSTEM		
Niagaran-Alexandrian Series		
Dolomite	89	314
ORDOVICIAN SYSTEM		
Maquoketa Group		
Dolomite, shale at top and base	45	359

A 10-in. diameter hole was drilled to a depth of 359 ft. The well is cased with 10-in. ID pipe from 2 ft above land surface to a depth of 226 ft.

A production test was conducted on May 19, 1945. The well reportedly produced from 280 to 295 gpm for 7.6 hr with a drawdown of 107 ft from a nonpumping water level of 51 ft below the top of the casing. Ten min after pumping was stopped, the water level had recovered to 56 ft.

In June 1963, this well was rejuvenated by the Aurora Pump Co. and the nonpumping water level was reported to be 85 ft above the bottom of the column pipe.

The pumping equipment presently installed is an 8-in., 10-stage Aurora turbine pump (Type DWT) set at 140 ft, rated at 250 gpm at about 275 ft TDH, and powered by a 25-hp 1800 rpm U.S. electric motor (Serial No. 586755). A 10-ft section of 6-in. suction pipe is attached to the pump intake. The well is equipped with 140 ft of airline.

The following mineral analysis made by the Illinois Environmental Protection Agency (Lab. No. C005278) is for a water sample from the well collected January 22, 1974, after 1 hr of pumping at 325 gpm.

### WELL NO. 2, LABORATORY NO. C005278

	mg/l	me/l		mg/l	me/l
Iron	Fe	0.1	Silica	SiO <sub>2</sub>	14.0
Manganese	Mn	0.00	Fluoride	F	0.9
Ammonium	NH <sub>4</sub>	0.77	Boron	B	0.7
Sodium	Na	60	Nitrate	NO <sub>3</sub>	0.3
Potassium	K	1.3	Chloride	Cl	3
Calcium	Ca	28	Sulfate	SO <sub>4</sub>	122
Magnesium	Mg	18	Alkalinity (as CaCO <sub>3</sub> )		158
Arsenic	As	0.00			
Barium	Ba	0.0	Hardness (as CaCO <sub>3</sub> )		144
Copper	Cu	0.00			
Cadmium	Cd	0.00	Total dissolved		
Chromium	Cr	0.00	minerals		326
Lead	Pb	0.00			
Mercury	Hg	0.0000	pH (as rec'd)		8.2
Nickel	Ni	0.0	Radioactivity		
Selenium	Se	0.00	Alpha pc/l		0.1
Silver	Ag	0.00	± deviation		0.8
Cyanide	CN	0.00	Beta pc/l		1.7
Zinc	Zn	0.01	± deviation		1.6

WELL NO. 3, open to the Cambrian-Ordovician aquifer, was completed in August 1974 to a depth of 1241 ft by the Hoover Water Well Service, Zion. As of March 1976, this well was not in use. The well is located on Nippersink Road, approximately 2600 ft N and 1575 ft W of the SE corner of Section 30, T45N, R10E. The land surface elevation at the well is approximately 790 ft.

A drillers log of Well No. 3 follows:



<i>Strata</i>	<i>Thickness (ft)</i>	<i>Depth (ft)</i>
Glacial drift	196	196
Silurian dolomite	169	365
Maquoketa shale	127	492
Galena-Platteville dolomite	248	740
Glenwood	114	854
St. Peter sandstone	104	958
Trempealeau	144	1102
Galesville sandstone	126	1228
Shale	13	1241

A 12-in. diameter hole was drilled to a depth of 588 ft, reduced to 10 in. between 588 and 1027 ft, and finished 8 in. in diameter from 1027 to 1241 ft. The well is cased with 12-in. pipe from land surface to a depth of 193 ft, 10-in. pipe from land surface to a depth of 588 ft (cemented in), and an 8-in. liner from 759 ft to a depth of 1027 ft (slotted between 860 and 950 ft).

A production test was conducted by the driller on August 19-20, 1974. After 24.2 hr of pumping at a rate of 300 gpm, the final drawdown was 120 ft from a nonpumping water level of 377 ft.

The pumping equipment presently installed is a Johnston vertical turbine pump set at 660 ft, rated at 450 gpm at about 690 ft TDH, and powered by a 125-hp 1770 rpm electric motor.

A partial analysis of a sample (Lab. No. 196669) collected during the initial production test, showed the water to have a hardness of 232 mg/l, total dissolved minerals of 319 mg/l, and an iron content of 0.5 mg/l.

## APPENDIX G





### HAZARD REVIEW WORKSHEET

1. Unique I.D. Number 2 0 2 9 8 - 0 1 - , Distance and Direction from the Wellhead 100 ft. southwest of the well
2. Nature of Business Hardware Store
3. DLPC Permit Number(s) and Description (e.g., RCRA, Generic, Solid Waste, UIC, etc.): None
4. DAPC Permit Number(s) and Description: None
5. DWPC Permit Numbers and Description (e.g., NPDES, Industrial Pre-Treatment, Sewer Plans, etc.): None
6. ERU Incidents and Description: None
7. ERU 313 Reports and Description: None
8. ESDA 302/303 Reports and Description: None
9. ESDA 311/312 Reports and Description: None
10. PWS compliance monitoring conducted and describe the results (e.g., VOC/VOA sample detects, etc.): None
11. ISFM list the underground storage tanks registered, provide the owner name & address:

Owner Name

Address

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

12. Is the site sewered or non-sewered? Sewered

If the site is not sewered, describe: \_\_\_\_\_  
\_\_\_\_\_

13. Has on-site past or present landfilling, land treating, or surface impoundment of waste, other than landscape waste or construction and demolition debris occurred?

( ) Yes. If yes, describe: \_\_\_\_\_  
\_\_\_\_\_

(X ) No.

14. Are there currently any on-site piles of special or hazardous waste?

( ) Yes. If yes, describe: \_\_\_\_\_  
\_\_\_\_\_

(X ) No.

15. Are on-site piles of waste (other than special or hazardous wastes) managed according to Agency guidelines?

( ) Yes. If yes, describe: \_\_\_\_\_  
\_\_\_\_\_

(X ) No.

16. Are there currently any underground storage tanks present on-site, and will any underground tanks be installed in the future?

( ) Yes. If yes, describe: \_\_\_\_\_  
\_\_\_\_\_

(X ) No.

17(a). Has any situation(s) occurred at this site which resulted in a "release" of any hazardous substance or petroleum?

( ) Yes (continue to next question)

(X ) No (stop here)

(b). Have any hazardous substances or petroleum, which were released, come into contact with the ground surface at this site? (Note--do not automatically exclude paved or otherwise covered areas that may still have allowed chemical substances to penetrate into the ground.)

( ) Yes (continue to next question)

( ) No (stop here)

(c). Have any of the following actions/events been associated with the release(s) referred to in question 17(b)?

( ) Hiring of a cleanup contractor to remove obviously contaminated materials including subsoils

( ) Replacement or major repair of damaged facilities



(c).(continued)

- ( ) Assignment of in-house maintenance staff to remove obviously contaminated materials including subsoils
- ( ) Designation, by IEPA or the ESDA, of a release as "significant" under the Illinois Chemical Safety Act
- ( ) Reordering or other replenishment of inventory due to the amount of substance lost
- ( ) Temporary or more long-term monitoring of groundwater at or near the site
- ( ) Stop usage of an on-site or nearby water well because of offensive characteristics of the water
- ( ) Coping with fumes from subsurface storm drains or inside basements
- ( ) Signs of substances leaching out of the ground along the base of slopes or at other low points on or adjacent to the site

(d). The on-site release(s) may have been of sufficient magnitude to contaminate groundwaters. Summarize the problem.

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18. Are there more than 100 gallons of either pesticides or organic solvents, or 10,000 gallons of any hazardous substance, or 30,000 gallons of petroleum present at any time?

( ) Yes. If yes, describe: \_\_\_\_\_

(x) No.

19. Do any of the regulated entities have groundwater monitoring systems, and have any exceeded compliance requirements?

( ) Yes. If yes, describe: \_\_\_\_\_

(x) No.

20. After considering all of the above criteria does this site potentially pose a hazard to groundwater?

( ) Yes. If yes, describe: \_\_\_\_\_

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(x) No.

Main body of the document containing several paragraphs of text. The text is extremely faint and illegible due to the quality of the scan. It appears to be a formal document, possibly a letter or a report, with multiple lines of text arranged in paragraphs.



### HAZARD REVIEW WORKSHEET

1. Unique I.D. Number 20298-03-PS, Distance and Direction from the Wellhead 100 ft. northwest of the well
2. Nature of Business Service Station and
3. DLPC Permit Number(s) and Description (e.g., PCRA, Generic, Solid Waste, UIC, etc.): None
4. DAPC Permit Number(s) and Description: None
5. DWPC Permit Numbers and Description (e.g., NPDES, Industrial Pre-Treatment, Sewer Plans, etc.): None
6. ERU Incidents and Description: None
7. ERU 313 Reports and Description: None
8. ESDA 302/303 Reports and Description: None
9. ESDA 311/312 Reports and Description: None
10. PWS compliance monitoring conducted and describe the results (e.g., VOC/VOA sample detects, etc.): None
11. ISFM list the underground storage tanks registered, provide the owner name & address:

Owner Name

Address

Gerald Molitor

320 W. Nippersink, Round Lake, IL 60073

12. Is the site sewered or non-sewered? Sewered  
If the site is not sewered, describe: \_\_\_\_\_  
\_\_\_\_\_
13. Has on-site past or present landfilling, land treating, or surface impoundment of waste, other than landscape waste or construction and demolition debris occurred?  
( ) Yes. If yes, describe: \_\_\_\_\_  
\_\_\_\_\_  
( X ) No.
14. Are there currently any on-site piles of special or hazardous waste?  
( ) Yes. If yes, describe: \_\_\_\_\_  
\_\_\_\_\_  
( X ) No.
15. Are on-site piles of waste (other than special or hazardous wastes) managed according to Agency guidelines?  
( ) Yes. If yes, describe: \_\_\_\_\_  
\_\_\_\_\_  
( X ) No.
16. Are there currently any underground storage tanks present on-site, and will any underground tanks be installed in the future?  
( X ) Yes. If yes, describe: 3 registered underground storage tanks on site.  
OSFM #2-018131  
\_\_\_\_\_  
( ) No.
- 17(a). Has any situation(s) occurred at this site which resulted in a "release" of any hazardous substance or petroleum?  
( ) Yes (continue to next question)  
( X ) No (stop here)
- (b). Have any hazardous substances or petroleum, which were released, come into contact with the ground surface at this site? (Note--do not automatically exclude paved or otherwise covered areas that may still have allowed chemical substances to penetrate into the ground.)  
( ) Yes (continue to next question)  
( ) No (stop here)
- (c). Have any of the following actions/events been associated with the release(s) referred to in question 17(b)?  
( ) Hiring of a cleanup contractor to remove obviously contaminated materials including subsoils  
( ) Replacement or major repair of damaged facilities



(c).(continued)

- ( ) Assignment of in-house maintenance staff to remove obviously contaminated materials including subsoils
- ( ) Designation, by IEPA or the ESDA, of a release as "significant" under the Illinois Chemical Safety Act
- ( ) Reordering or other replenishment of inventory due to the amount of substance lost
- ( ) Temporary or more long-term monitoring of groundwater at or near the site
- ( ) Stop usage of an on-site or nearby water well because of offensive characteristics of the water
- ( ) Coping with fumes from subsurface storm drains or inside basements
- ( ) Signs of substances leaching out of the ground along the base of slopes or at other low points on or adjacent to the site

(d). The on-site release(s) may have been of sufficient magnitude to contaminate groundwaters. Summarize the problem.

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18. Are there more than 100 gallons of either pesticides or organic solvents, or 10,000 gallons of any hazardous substance, or 30,000 gallons of petroleum present at any time?

( ) Yes. If yes, describe: \_\_\_\_\_

( x) No.

19. Do any of the regulated entities have groundwater monitoring systems, and have any exceeded compliance requirements?

( ) Yes. If yes, describe: \_\_\_\_\_

( x) No.

20. After considering all of the above criteria does this site potentially pose a hazard to groundwater?

( x) Yes. If yes, describe: Any below ground fuel tanks in close proximity to a water well is a potential hazard to groundwater.

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( ) No.





### HAZARD REVIEW WORKSHEET

1. Unique I.D. Number 2 0 2 9 8 - 0 4 - , Distance and Direction from the Wellhead 50 ft. north of the well
2. Nature of Business Lumber Yard
3. DLPC Permit Number(s) and Description (e.g., RCRA, Generic, Solid Waste, UIC, etc.): None
4. DAPC Permit Number(s) and Description: None
5. DWPC Permit Numbers and Description (e.g., NPDES, Industrial Pre-Treatment, Sewer Plans, etc.): None
6. ERU Incidents and Description: None
7. ERU 313 Reports and Description: None
8. ESDA 302/303 Reports and Description: None
9. ESDA 311/312 Reports and Description: None
10. PWS compliance monitoring conducted and describe the results (e.g., VOC/VOA sample detects, etc.): None
11. ISFM list the underground storage tanks registered, provide the owner name & address:

Owner Name

Address

_____	_____
_____	_____
_____	_____
_____	_____

12. Is the site sewered or non-sewered? Sewered

If the site is not sewered, describe: \_\_\_\_\_

13. Has on-site past or present landfilling, land treating, or surface impoundment of waste, other than landscape waste or construction and demolition debris occurred?

( ) Yes. If yes, describe: \_\_\_\_\_

( X ) No.

14. Are there currently any on-site piles of special or hazardous waste?

( ) Yes. If yes, describe: \_\_\_\_\_

( X ) No.

15. Are on-site piles of waste (other than special or hazardous wastes) managed according to Agency guidelines?

( ) Yes. If yes, describe: \_\_\_\_\_

( X ) No.

16. Are there currently any underground storage tanks present on-site, and will any underground tanks be installed in the future?

( ) Yes. If yes, describe: \_\_\_\_\_

( X ) No.

17(a). Has any situation(s) occurred at this site which resulted in a "release" of any hazardous substance or petroleum?

( ) Yes (continue to next question)

( X ) No (stop here)

(b). Have any hazardous substances or petroleum, which were released, come into contact with the ground surface at this site? (Note--do not automatically exclude paved or otherwise covered areas that may still have allowed chemical substances to penetrate into the ground.)

( ) Yes (continue to next question)

( ) No (stop here)

(c). Have any of the following actions/events been associated with the release(s) referred to in question 17(b)?

( ) Hiring of a cleanup contractor to remove obviously contaminated materials including subsoils

( ) Replacement or major repair of damaged facilities



(c).(continued

- ( ) Assignment of in-house maintenance staff to remove obviously contaminated materials including subsoils
- ( ) Designation, by IEPA or the ESDA, of a release as "significant" under the Illinois Chemical Safety Act
- ( ) Reordering or other replenishment of inventory due to the amount of substance lost
- ( ) Temporary or more long-term monitoring of groundwater at or near the site
- ( ) Stop usage of an on-site or nearby water well because of offensive characteristics of the water
- ( ) Coping with fumes from subsurface storm drains or inside basements
- ( ) Signs of substances leaching out of the ground along the base of slopes or at other low points on or adjacent to the site

(d). The on-site release(s) may have been of sufficient magnitude to contaminate groundwaters. Summarize the problem.

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18. Are there more than 100 gallons of either pesticides or organic solvents, or 10,000 gallons of any hazardous substance, or 30,000 gallons of petroleum present at any time?

( ) Yes. If yes, describe: \_\_\_\_\_

(x) No.

19. Do any of the regulated entities have groundwater monitoring systems, and have any exceeded compliance requirements?

( ) Yes. If yes, describe: \_\_\_\_\_

(x) No.

20. After considering all of the above criteria does this site potentially pose a hazard to groundwater?

( ) Yes. If yes, describe: \_\_\_\_\_

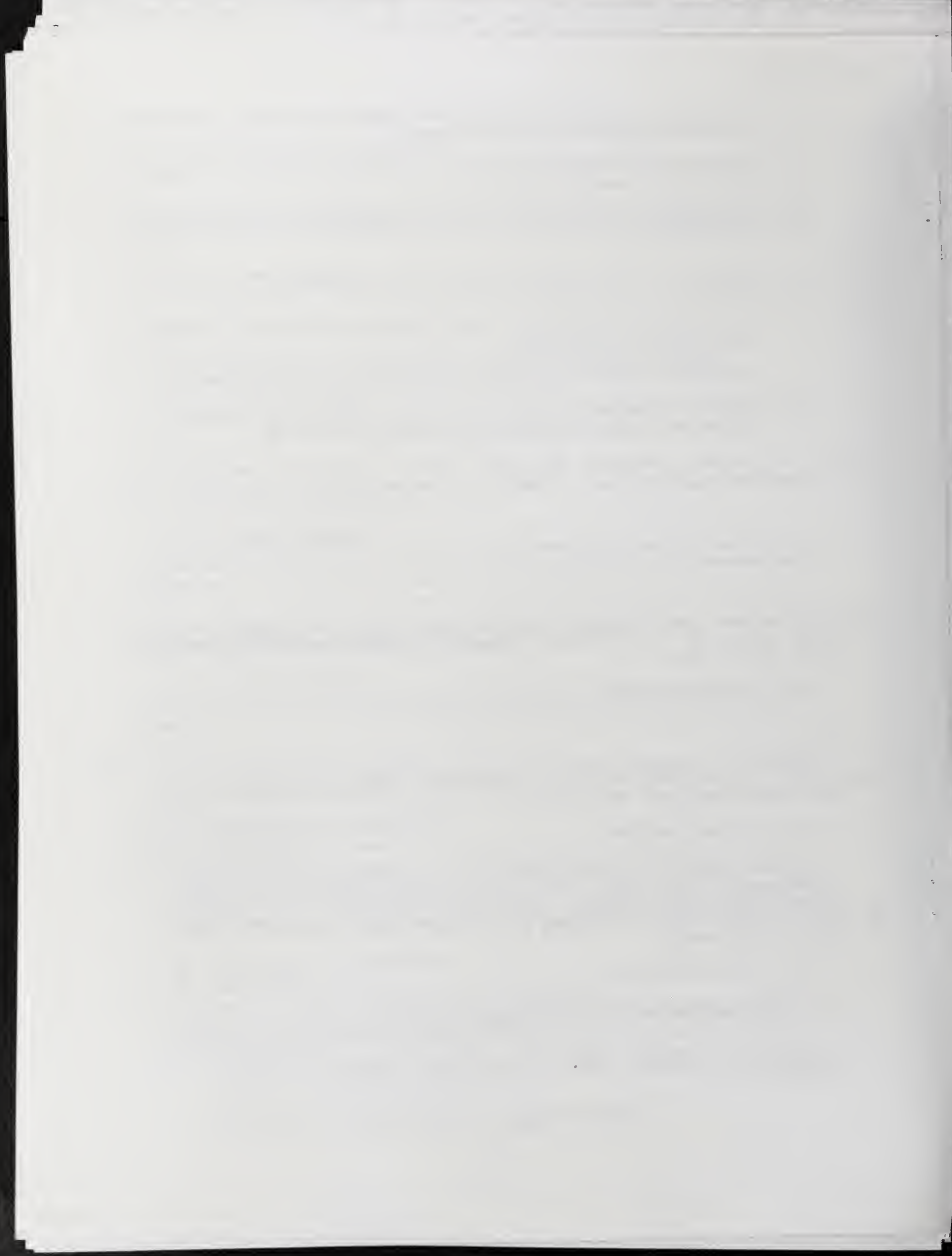
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(x) No.







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